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THE CAMP-FIRE P. 60.

MARY GAY; OR, WORK FOR GIRLS

By JACOB ABBOTT.

IN FOUR VOLUMES.

ILLUSTRATED BY H. W. HERRICK.

WORK FOR WINTER.



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TO THE PARENT.

THE object of this series is to assist girls to occupy themselves, and to aid the parent in finding amusement and employment for them, by explaining to them the nature of various operations of a more or less mechanical nature, which they can safely and properly perform with the assistance of the instructions here given.

Many of the readers of the books will perhaps actually undertake some of the operations here described, and so reduce the instructions to practice. Others will not do this; but the author hopes that these also may derive pleasure and advantage from the perusal of the books, through the knowledge which they may acquire from them of the properties of various substances in

common use, and the principles involved in many ordinary processes such as their years and their state of mental development enable them to comprehend and appreciate, and which the incidents narrated in the several volumes, and the conversations accompanying them, are intended to elucidate and explain.

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MARY GAY'S WORK IN WINTER.

CHAPTER I.

ABOUT KNITTING.

ONE pleasant morning in December, Mary Gay and her sister Luly, having just come in from play, were warming themselves by the fire. Their mother was sitting near a window at the back side of the room.

Luly took off her things and put them away, but Mary sat still, with her cloak and her bonnet and mittens still on, and seemed lost in thought. Her mother, on looking at her, observed that her countenance wore a disappointed and sorrowful expression.

"Well, Mary," said her mother, "what is the trouble now?"

"Why, nothing, mother," said Mary,—"only I can't think of anything I can do for cousin John to pay him for making a sled for me."

Then, after a pause, she added, speaking in a disconsolate and sorrowful tone, —

“There is not anything at all that girls can do.

“Now, John,” she continued, after a moment’s pause, “has got a nice shop and tools, and he can make a thousand things that are very useful. But girls can’t have a shop, and if they could, they could not use the tools; and there is not anything that we can do but make silly little book-marks and such things, that are of no real use at all.”

“I should think that John would be willing to make you a sled without any pay,” said Mrs. Gay.

“He *is* willing,” replied Mary. “He says he does not wish for any pay at all. But I *want* to pay. I do not like to have him all the time doing things for me, while I never do anything for him.”

“Could you not knit him a pair of mittens?” asked Mrs. Gay.

“Yes,” exclaimed Mary, eagerly, “I could do that, I verily believe. I could knit him a pair of mittens. Boys are always losing their mittens or wearing them out in sliding, and so they want new ones.”

"Perhaps you might mend the mittens he has now," said Mrs. Gay. "There is a difficulty about knitting new mittens, and that is, you have to buy the yarn."

"Does it cost a great deal to buy the yarn?" asked Mary.

"Yes," said her mother, "almost as much as the mittens are worth when they are done."

Mary said that she did not see how this could be, for people who knit mittens must certainly have some pay for knitting them.

Her mother explained to her how it happened that there was so little profit in buying yarn and knitting mittens and stockings. When you buy yarn you have to pay not only the cost of producing the wool and spinning the yarn, but also the profit which the farmer himself wishes to make on the produce of his farm, and also that of the merchant or storekeeper who sells it to you. This last makes the yarn cost you a good deal more than it does the farmer's wife or daughter, who knits the yarn that she has spun herself out of wool which has grown on the backs of the sheep on her husband's or father's land.

Then, besides this, the farmers' wives and daughters have a great deal of spare time that they can spend in knitting, which would otherwise be entirely lost, and they are glad to have the knitting to do even if they get very little for it. And the number of farmers' wives and daughters is so vast in the country at large, that a great quantity of coarse mittens and stockings are produced, which can be bought for but little more than you would have to give for the yarn to knit them from, if you were to buy the yarn with a view of doing the knitting yourself.

When Mary heard this explanation she was convinced that it was the true one, and she felt quite discouraged about earning any money in that way.

"You might *mend* Johnny's mittens, at any rate," said Mrs. Gay, "when he gets holes in them."

"Yes," said Mary, eagerly, "I can do that. He and Benny are always getting holes in their mittens."

So Mary very wisely determined that her first work in the way of being useful to John should be in mending his mittens.

She had learned to darn very well. She liked to do it. It amused her to watch the progress of the work, as she first laid a series of threads parallel to each other over the hole in one direction, and then crossed them with others at right angles.

Luly used to sit by her and watch her while she was doing this, and often wished that she could do so too.

"Mary," she would say, "I wish you would teach *me* to darn."

"I will," Mary would reply; "I will some day,—when you get a little bigger."

"Oh, dear me!" Luly would exclaim, with a disconsolate sigh, "I wish I could only get bigger. When *shall* I get bigger, Mary?"

The next time that Mary's cousin John came to the house, the first thing that Mary did was to make an inspection of his mittens. She found, to her great joy, a small hole in each of the thumbs.

"Now, John," said she, "I have found something I can do for you to pay for making my sled. I can mend your mittens."

"Yes," replied John, "I should like to have my mittens mended very much."

"Then take them right off and give them to me. I will have them all mended nicely by the time that you come to-morrow."

"But what shall I have to wear in the meantime?" said John. "I can't go a whole day without any mittens."

"Have n't you got any other pair?" asked Mary.

"No," said John, — "only these."

"Has n't Benny got a pair that he could lend you?" asked Mary.

"Hoh!" exclaimed John, "Benny's mittens are not half big enough for me."

"I wish you had two pairs of mittens," said Mary, "and then while I was mending one pair you could wear the other."

"Yes," said John, "I wish I had; but I have not."

Here was a difficulty. Mary could mend the mittens well enough, but John could not do without them long enough to allow her time.

So, after making his visit and doing his errand, John went away again, — wearing his mittens back with the holes in the thumbs, just as he came.

CHAPTER II.

ABOUT TEACHING.

MARY soon after this told her mother that she could not manage to mend John's mittens, for he could not spare them long enough to give her time, inasmuch as he only had one pair. So she asked her mother if she could not think of something else that she could do for him to pay for the sled.

"No," said her mother, "I do not think of anything but mending and knitting; but I have thought of a way by which you can earn some yarn and so knit him a new pair of mittens, and that is by teaching Luly to darn. She is six or seven years old now, and is old enough to learn to darn; and you might teach her." *

* In the books entitled, "John Gay; or, Work for Boys," Mary and her sister Luly are often spoken of, but Luly was then only about four years old. That was two years before the present time, and of course Luly was now two years older. So were Mary and John; and John was much stronger and more capable, and could now easily make a good many things that he was then only just learning to make.

Mary said she was perfectly willing to teach Luly to darn, if she was only willing to learn.

"That is just the difficulty," said her mother. "Luly will be ready enough to *begin* to learn, but she will not be inclined to persevere; and what you will have to do is by skilful management to encourage her, and draw her on from step to step, until she has learned. I will consider that she has learned as soon as you can show me two holes as big as a postage-stamp that she has darned neatly, and woven the cross threads in all right. And then I will give you yarn enough to knit a pair of mittens for John."

Mary was quite pleased with this plan. She thought that she should earn the money very easily, but her mother told her that she would *not* earn it easily, by any means.

"If Luly was really willing to learn," said her mother, "and had all the necessary patience and perseverance, so that you had nothing to do but to show her how to manage her needle and weave the threads in properly by carrying each one of the second set of threads alternately above and below

those of the first set, then, instead of earning yarn enough to knit a pair of mittens by teaching her, you would hardly earn enough to pay for one needleful to mend them with."

Mary looked quite serious and thoughtful while her mother was saying these things.

"Luly will begin very zealously, no doubt," continued Mrs. Gay, "but she will get tired very soon; and as soon as she comes to any difficulty, or makes mistakes or failures, she will be discouraged, and it will require a great deal of skill and good management on your part to induce her to go on. And it will be by the exercise of this skill and good management that you will earn your pay."

"But, mother," said Mary, "I will tell you what I think would be a good plan. Suppose you make a *rule* that Luly must come to me for a certain time every day, and work diligently in darning, or learning to darn. It might be for half an hour, or for a quarter of an hour if you think half an hour would be too long."

"That would be a pretty good plan," said

Mrs. Gay, "I suppose. There would have to be a punishment, or penalty of some sort, in case Luly at any time would not obey the rule. A rule without a punishment or penalty is nothing at all."

"Why you see, mother, if Luly would not come when I called her," said Mary, "or would not attend to her work, then I could tell you, and you could make her go and sit in the corner, or something like that."

"Yes," said Mrs. Gay, "that would be a very good way; but then that is throwing the most disagreeable and difficult part of the business of teaching Luly to darn upon me, instead of providing for you to do it yourself. I was trying to contrive some way for *you* to earn the yarn by taking charge of Luly's learning to darn; but your plan, though very good in itself, puts the chief part of the work upon me, so that *I* should earn the yarn in fact, and not you."

"But, mother, I should do all the *teaching*."

"True," replied her mother. "You would the actual teaching, and so I was wrong in saying that I should earn the yarn and not

you. But I should earn a large part of it."

"I don't think you would earn a *very* large part of it, mother," said Mary, "for it would not be much that you would do. You would only make the rule, and then when I told you that Luly would not work, you would only have to call her to come and sit in the corner."

"That seems not to be a great deal, I admit," said Mrs. Gay; "but it *is* a great deal after all, not on account of the time it would take, but on account of the disagreeableness and painfulness of it. Perhaps I should be busy in some way,—it might be in reading, or writing a letter,—and you come to me to complain that Luly won't attend to her work. This of itself, of course, not only interrupts me, but it disturbs and troubles me. I can't really blame such a little thing as Luly for preferring play to learning to darn, or for getting easily tired and perplexed in learning such a difficult thing as darning must be to her. But yet it is necessary, if I have made a rule, that she should obey it; so I have to call her to me, and send her into the corner for punish-

ment. All the time that she is there I cannot help pitying her. Even if she did not cry, she would look so distressed and unhappy that I could not go on with my writing, or my work, whatever it might be, with any peace or comfort. Indeed, I think that of the two I would much rather attend to the whole business of teaching her to darn myself, than to force her to attend to another person's teaching."

Mary perceived that what her mother said was clearly reasonable, and she was silent.

"I am perfectly willing to give you the money to buy yarn to knit the mittens with, if you like that way," said Mrs. Gay. "But I supposed that you were setting your heart on earning it yourself."

"Yes, mother, I am," said Mary.

"And on *really* earning it, and not merely making believe earn it?"

"Yes," replied Mary. "I want to earn it myself, really and truly."

"Very well, then," said her mother; "try and see if you can devise easy and pleasant ways of teaching Luly to darn, without giving me any trouble or concern about it. If you can, you will have fully earned the

yarn. I would gladly give any one the value of the yarn required to make a pair of mittens for doing that. But I would not give anybody the value of the yarn to knit even *one thumb* for just showing Luly how to take the stitches in learning to darn, if I must have the trouble of forcing her to go to her work every day, and to pay attention to the instructions."

Mary sat silent and thoughtful a few minutes after her mother had finished speaking, and then looking up, with a cheerful and animated countenance, she said, —

" Well, mother, I 'll try."

CHAPTER III.

THE SLEIGH-RIDE.

MARY would have liked to ask her mother to give her some advice or directions in regard to the best way of managing with Luly, to keep up her interest in learning to darn, and inducing her to persevere patiently until she had learned, but she thought she must not do this. as it was a part of the agreement that she was to do the whole work herself, and that her mother was to have no trouble about it.

She was, however, mistaken in this supposition. It was indeed the agreement that she was not to give her mother any *trouble* in managing the affair, but it would not have caused Mrs. G. any trouble, but pleasure rather, to have given her daughter some general advice beforehand, in respect to the way in which she was to proceed. A mother generally likes very much to give her daughter advice or instruction

of any kind, when she asks for it at a proper time and in a proper way, and not in connection with any difficulty, or quarrel, or wrong-doing of any kind. To have Mary begin to teach Luly, and get into difficulty with her, and then come to her mother to settle the dispute, and perhaps punish Luly for breaking some rule, would be a very disagreeable thing; but to have Mary ask beforehand for such advice and instruction as she required for her guidance, would not have been disagreeable at all. It would rather have been a source of gratification to her mother.

The agreement, moreover, which Mary made did not at all require that she should do the work entirely alone, — without any help from her mother, — but only that she should not ask of her mother anything that would give her pain, or tend to impose upon her any of the burden or care.

Mary thought, however, that she must not ask her mother's advice or consult her at all. But she concluded to think well of the subject, and to form a good plan before she commenced her operations.

“I might ask Uncle Edward about it, I

suppose," she said to herself, "and I will, the very next time I see him."

Mr. Edward — her uncle as she called him — was not really her uncle. He was her cousin John's uncle; but Mary and Luly, following John's example, almost always called him Uncle Edward.

Mary had an opportunity to ask Mr. Edward sooner than she expected, for that evening just about sunset it began to snow, and the next morning when Mary and Luly looked out at the window they found the ground covered everywhere nearly a foot deep, which, as the ground had previously been frozen quite hard, made it excellent sleighing; and the consequence was that soon after breakfast Mr. Edward came, as he often did on similar occasions, to give Mary and Luly a sleigh-ride.

They heard the jingling of the sleigh-bells coming up to the door very soon after breakfast. They ran to one of the front windows, one that opened upon a piazza near one end of the house, where the sun shone in very pleasantly in the morning. The sleigh was there with two horses. There were two seats in the sleigh. The

forward seat was higher than the back one, for convenience in driving. John was on the front seat, and Mr. Edward on the back seat, — both well enveloped in buffaloes.

“Come, children,” said John, “come and take a sleigh-ride. I’m going to drive.”

“Well,” said Mary, “we will come. Only I don’t think you need call us children. We are no more children than you are.”

“That’s a fact,” said John; “but never mind that. Go and put your things on, and come quick and take a ride. Never mind about warming your feet, for Uncle Edward has got a hot plank in the sleigh for you to put your feet upon. Come quick, before the plank gets cold.”

Mary and Luly went in immediately to report the invitation which they had received to their mother, and to get ready. In a short time they came back both well muffled up in coats and furs.

Luly wished to sit on the front seat with John, where she could be near the horses, and see John drive, notwithstanding John’s telling her that by so doing she would lose all the benefit of the hot plank.

So Luly took the forward seat by the side of John, while Mary stepped in upon the hot plank,— Edward making an opening among the buffaloes for her. The hot plank was well enveloped in a horse-blanket, so that she did not feel the heat of it at first.

Mary's cousin, John, was a very good driver, and as soon as all were ready he set the horses off on a good round trot. Before they had gone far, Mary began to tell Mr. Edward of the arrangement which her mother had made with her for teaching Luly to darn, and said that she was to do it without giving her mother any trouble about it at all.

Luly hearing that her sister was talking about her, turned her head a little to listen. John listened too.

"Mother thinks," said Mary, "that Luly will begin well enough, but that she will get tired pretty soon, and won't persevere; and then the difficulty will be for me to know what to do. For I can't go to mother about it at all."

"No," said Luly, "I shall not get tired, I am sure, and you will not have any trouble.

I want to learn to darn very much, and I am sure I shall persevere."

"Yes," said Edward, "I think she will persevere, though that will depend a great deal upon how you manage."

"And how must I manage?" asked Mary.

"That is rather hard to say," answered Edward. "It is difficult to describe any right way. It is much easier to tell of wrong ones. I can tell you how you must not manage. You must not do as Ninny did."

"Ninny!" repeated Mary. "Who is she?"

"Did not you ever hear of Ninny?" asked Edward.

"No," said Mary.

"Her real name was Nina," said Edward; "but she was such a silly child that they always called her Ninny. I am sure you must have heard of her doings sometimes."

"I rather think," said John, "she must be a cousin or some relative of Bill Booby, that Ebenezer tells me so much about."

Ebenezer was a farmer's son whom John used to go and see, and who often enter-

tained him with accounts of the blunders and mismanagement of one Bill Booby.

"And how did Ninny manage?" asked Mary.

"Her mother proposed to her," said John, "to teach something or other, I have forgotten what, to her little sister Jane, and if she succeeded in doing it she was to receive a certain little shawl-pin with a yellow stone in it, which her mother had, as a reward. But when she commenced her teaching she gave her mother unceasing trouble by continually getting into difficulty with little Jane. She would call her suddenly away from some play that she was very much interested in, without giving her any warning or time to prepare. One time, just as Jane had taken out her blocks and spread them upon the carpet, and was beginning to build a tower, Ninny all at once conceived the idea of giving her a lesson. So she called out suddenly, —

"'Now, Jane, put your blocks right away again, and come to me and take a lesson. I am going to give you a lesson.'

"'No,' said Jane, and she went on building her tower.

“‘Jane!’ said Ninny, speaking in a very stern voice, ‘come to me this instant.’

“Jane did not move, but sat still, holding one of the blocks in her hand and looking down, and at the same time beginning to sing in a low and scarcely audible tone.

“‘Jane,’ said Ninny, ‘are you not going to mind me? Mother said that I was to teach you, and so you must come whenever I call you. If you don’t come immediately, I shall go and tell mother.’

“But Jane did not come, and so Ninny went and complained to her mother. Her mother was, of course, much perplexed to know what to do. She had not given Jane any direction to come immediately whenever Nina was ready to give a lesson, and so it would be wrong to punish her, or even to find fault with her much for not coming. But then, on the other hand, since she had commissioned Nina to teach her, it did not seem quite right not to do something to remedy the difficulty when she refused to go and be taught. But what to do was the difficulty. Her mother was greatly perplexed and troubled, and very much inter-

rupted in her work by having such a question to decide."

"And what *did* she decide?" asked Mary

"Why, she told Jane that she thought she had better go and take her lesson. Jane said she would, as soon as she had finished her tower. So her mother gave her leave to finish her tower.

"This she did. She built her tower, — though she built it very slowly in order to take up as much time as possible. When she had done it, she put her blocks away and went to take her lesson. But Ninny was out of humor because Jane had been allowed to finish her tower, and Jane was out of humor because she had been compelled to go so soon; so the lesson did no good. Jane did not learn anything by it at all."

On hearing this story, Mary resolved that she would be more careful when she wished to give Luly a lesson; not to call her away too suddenly from any play or other occupation in which she was interested, but would always choose times when she was not particularly engaged; or if, in any case, she was obliged to call her away from her

play, she would not do it too abruptly, but would give her some little notice, and some time to finish what she was actually for the moment doing.

It is very probable that Mary and her Uncle Edward would have had some further conversation on this subject, were it not for a circumstance which occurred at this time, and which turned the thoughts of the whole company into another channel. The circumstance was their coming in sight of another party of sleigh-riders, going along the road at a short distance before them. John whipped up his horses and soon overtook the other sleigh; and as the road at this place was very wide, they rode along for some time together, side by side, the children in the two sleighs talking and laughing together very merrily.

The two sleighs kept company with each other after this during the whole ride, though they were not all the time side by side. At length, after about an hour, they arrived at home again, and Mr. Edward left Mary and Luly upon the piazza where he had taken them, and he and John drove away.

CHAPTER IV.

BAKING-DAY.

By the side of the house where Mary Gay lived was a sort of lane which led past the barns and sheds, and thence along just outside the garden-fence toward the pasture and the wood-lot. The wood-lot, so called, was a forest of trees which occupied one part of the pasture. Every year in the fall a number of the trees were felled, and cut up into suitable lengths to be hauled home on sleds ; and then in the winter, as soon as the ground was covered with snow, Mrs. Gay's man — whose name was Jotham Jones — used to go with the oxen and haul the wood to the house. Here he would pile it up in a long pile, adding to the pile every day as much as he could haul in three or four loads. Then, in the latter part of the winter, when the snow became too deep to haul any more, he would saw and split the wood, and pile it

in the sheds, where it would remain ready to be used for the fires in the house the next winter.

Thus the fuel for the house was obtained every year from the forest in the pasture, and that was the reason why that portion of the pasture was called the wood-lot.

The lane leading to the pasture and the wood-lot was a very pretty place in summer. It had the garden on one side, and an orchard on the other. The garden-fence was close and high, and very difficult to get over; but there was a gate, or rather a door, in it, at one place, where the children could go through, when they wished to go out of the garden into the lane, in order to go to the pasture, or into the woods of the wood-lot, for the purpose of gathering flowers in the spring, or nuts and acorns in the fall.

The space between the roadway in the lane and the garden-fence was filled with wild raspberry and blackberry bushes, and the children used often to go there in summer to gather berries.

In winter too the road along the lane was very pleasant, for it was sheltered from the wind by the high garden-fence.

Mary's cousin, John, with very commendable foresight, had made the sled for her during the fall, in order that it might be ready, and the paint all dry, when the first snow should come. It so happened that he came to bring it home on the morning of the day after the sleigh-ride described in the last chapter. He came to the piazza-door with the sled, having tied it to the end of his own sled, so as thus to draw them both along together. Benny came with his sled, too.

The boys left the three sleds at the door, and went into the house. They asked Mrs. Gay where Mary was.

"She and Luly are in the kitchen," said Mrs. Gay. "It is baking-day."

"Good! Benny," said John, in a tone of great satisfaction, — "we will have one of Luly's little pies."

So the boys went on through the back parlor where Mrs. Gay was sitting, out through a wide hall, and thence into the kitchen. Here they found Mary and Luly both busy at work, in company with Sophronia, Mrs. Gay's girl, making pies. Sophronia and Mary were at work at a

large table near a window, and Luly at a small one with short legs, which made it just high enough for her to work at when standing on the floor.

Mary herself was standing on a little platform or step which John had made for her, and which raised her from the floor enough to bring her to the right height to work at the same table with Sophronia, who was much taller than she was.

Mary and Luly had both learned to make pies very well. The way in which they had learned was by imitating Sophronia. Mary, when she first began to learn, would take her stand upon her little platform at the end of Sophronia's table, where she was provided with the same materials and implements that Sophronia herself was to use, only on a much smaller scale; and then, watching attentively all of Sophronia's movements and operations, she would do the same things herself, imitating all that Sophronia did, step by step; and thus while Sophronia made large pies, Mary would make little ones.

Of course she did not attempt to keep up with Sophronia in the work, so as to

finish her small pie as soon as Sophronia finished the great one. She went much more slowly, so that while Sophronia was making half a dozen pies, she would only make two or three.

For some time after this system was commenced, Luly watched the proceedings every baking-day with great interest, until at last she began to feel a desire to try to make pies too.

"Why, Luly," said Mary, "you are not big enough."

"But I don't mean to make such big pies as you and Sophronia do. I only want to make very little pies."

"But you are not tall enough to stand at the table and work upon it as I do."

"I could stand upon your platform," said Luly.

"You would not be high enough then," said Mary.

"I could stand up in a chair," said Luly.

"Then you would be *too* high," said Mary.

Luly paused a moment, — apparently somewhat perplexed, — when at length, as

if a new idea had suddenly come into her mind, she said, "I know what I can do." And so saying, she immediately ran off into the other room, shutting the door after her.

In a few minutes Mary heard her at the door again, calling out "Open the door." Mary went to respond to the call, and on opening the door she found Luly there bringing her table with her. It was a small square table, very light, and just of the right height for her. It was made of pine, but it was painted of a dark color in imitation of rosewood. It was in fact quite a pretty table.

"I have brought my table," said Luly, "and I can work at my table very well, if you will only give me the things, and a very little plate."

"So Sophronia gave her the things that were necessary, and also a very small plate; and Luly made a pie, though it must be confessed that in doing it she received a good deal of assistance from Mary, who, instead of finding fault with her and calling her troublesome, aided and encouraged her as much as she could, as she knew that her

mother wished Luly to be encouraged to learn as many useful things as possible.

Luly's pie, when finished, was put into the oven with the rest; and when it was baked, Luly carried it with great pride and pleasure to show to her mother.

After this, John made Luly a roller to roll out the paste for her pies; and almost every baking-day she used to go into the kitchen with her little table, and work there very diligently, while Sophronia and Mary were employed at the great table, in making little pies and turnovers, and other such things, all of which were put in the oven by Sophronia on a sheet of tin by themselves, to be baked with the great pies.

She was employed in this way on the day when John and Benny came to bring home Mary's sled. She had made two little pies, and was just finishing a turnover when John and Benny came in.

John went at once to Mary's table, and Benny to Luly's.

"Mary," said John, "I have brought home your sled, and we want you and Luly to go with us a-coasting. Jotham is yoking up the oxen, and we can go along with him."

"Well," said Mary, "as soon as we have got the pies into the oven."

"Ah, Luly," said Benny, "what nice little pies! You will give me one of them when they are baked?"

"No," said Luly, "I can't do that. I've only made three to-day, and I want them all for myself."

"Oh, Luly!" said Benny, "you can't eat three pies all yourself. It would make you sick."

"It is not three pies," said Luly. "There are only two pies and a turnover."

"That is just the same thing," said Benny.

"No," said Luly, "a pie and a turnover are very different things."

"I mean," rejoined Benny, "they are just the same about making you sick."

"But I am not going to eat them all in one day," said Luly. "I want one for to-day, one for to-morrow, and one for day after to-morrow."

"If you will give me the turnover," said Benny, "I will draw you on my sled all the way to the coast."

The coast was a long descent in the cart-

road leading through the open part of the pasture to the wood-lot, where the children used to go to slide. The wood-sled in going up and down opened the road for them after every storm, and their sleds soon wore it smooth ; and as the wood-sled only went back and forth two or three times in the day, the children had the road most of the time all to themselves.

Luly was very much tempted by Benny's offer to draw her all the way to the coast. After some hesitation she concluded to accept it, and she finally promised to give him the turnover on the condition proposed.

In a few minutes after this the pies were put in the oven, and then, Mary and Luly having first put on their winter outside clothing, they all went out by the piazza-door to get the sleds, and thence round into the barn-yard, where they found Jotham just getting ready with his wood-sled and his oxen.

CHAPTER V.

JOTHAM JONES.

THE sled which John had made for Mary was what may be called a girl's sled, being constructed with a sort of back-piece, fastened behind, for the girl sitting upon it to lean against a little for a support, and also to keep her from slipping off behind in being drawn up-hill. For boys, such a protection in going up-hill is unnecessary, inasmuch as it is of no consequence if they do slip off. They can easily scramble up and jump on again, and such an accident only makes more fun. But girls are encumbered by their dress, and cannot well perform sudden evolutions of that kind, and consequently a little support behind is a great convenience to them.

As soon as the children reached the yard where Jotham was preparing the ox-sled, John immediately began to attach the hand-sleds to the ox-sled by fastening the cords

to the stakes and to the cross-bar at the end. Jotham seemed to take this as a matter of course, as indeed well he might, inasmuch as the boys had always been accustomed to ride behind his sled in this way in previous years. Jotham was a very taciturn young man, that is to say, he talked very little, and seemed to have no particular fancy for children. He, however, had no objection to children going with him, provided they behaved well, and did not hinder his work. If they troubled him at all in any way, he always sent them off in a very peremptory manner.

John fastened the cord of Mary's sled to the middle of the cross-bar at the end of the ox-sled, and that of his own sled to one of the stakes, leaving the other stake for Benny. But Benny said he was going to hold the cord of his sled in his hand, and sit on the end of the cross-bar.

At length the arrangements were all made. John's and Mary's sleds were fastened to the ox-sled, and John had taken his seat on *his* sled, and Mary on hers. Luly was also seated on Benny's sled, while Benny, seated on the cross-bar of the ox-sled, at one side,

held the cord in his hand. Thus, as they thought, they were all ready for a start.

"John," said Jotham, "you have forgotten your board."

The board which Jotham referred to was one which he had prepared to fit in between the two back cross-bars of the sled, to close the space there, in order to prevent the children, when riding on the sled, from slipping through. For, as probably most of my readers are aware, an ox-sled, such as is used in the country for hauling wood, has commonly no flooring of boards, but only cross-bars extending across from one runner to another, about a foot or fifteen inches apart. The wood with which the sled is to be loaded, consisting of stieks usually four feet long, rests very well on these bars, while yet children attempting to ride on the sled would be in danger of falling through.

So Jotham had made a board just wide enough and long enough to fit in between the two cross-bars nearest the end of the sled, so as to close up the last space, and make a sort of floor there wide enough for the children to stand upon when they were riding on the sled.

This board was kept in a certain place in the barn, and John was required to put it on whenever he and Benny went with the sled. When only Mary and Luly went, Jotham had the politeness to put the board on for them.

Jotham now called upon John to put on the board.

"Oh, Jotham," replied John, "we don't need any board. We are all riding on our sleds except Benny, and he is sitting down."

"Put on the board," said Jotham, peremptorily.

So John got off from his sled and went into the barn to get the board. Before he got back, Jotham had started. John ran, and hastily fitting the board into its place, scrambled back upon his sled again; and then the whole party were drawn slowly on by the oxen along the lane. Jotham was seated in the forward part of the sled, upon an iron chain which he had passed across there from one stake to another.

Thus the whole party were nicely accommodated.

You must remember that Benny did not

fasten the string of his sled to the stake, but sat upon the cross-bar and held the string in his hand, and by this means Luly was drawn along.

After going on in this way for some time, John jumped off from his sled, and running forward, climbed up upon the ox-sled, by means of one of the stakes, and stood upon the little flooring made by the board and the two cross-bars at each side of it. Presently he began to walk along toward the front of the sled, where Jotham was sitting upon the chain. In passing forward in this way he stepped from one cross-bar to another, steadying himself all the way by the stakes at the sides.

“Jotham,” said he, “what is it that you always make us put that board on the sled for, when we go out into the woods with you?”

“Because,” replied Jotham, “I don’t want to have any boys or girls with broken legs to haul home on the top of my load. — Ha’ Bright! Ha’ Golden!”

These last words, it is scarcely necessary to say, were addressed to the oxen.

“We don’t need any board to keep us from falling through,” said John.

"Ha' Bright!" said Jotham.

"I can go *all over* this sled," continued John, "without falling through."

Jotham did not answer.

"I could do it," said John, "if the bars were twice as far apart."

"Gee a little, Bright!" said Jotham.

"Besides," said John, "if you have a board anywhere, you should have one between every pair of cross-bars, for we might fall through when we come forward to speak to you."

"That 's none of my business," said Jotham. "If I floor over your part of the sled, and make it safe, and you choose to leave your own place and come forward to mine, and so fall through and break your legs, it 's none of my business. I should not care anything about it."

"You would have to haul us home," said John.

"Yes," said Jotham. "I should haul you home, but I should not care. It is no great thing for a boy to break his leg."

"Oh, Jotham!" exclaimed John.

"Getting it set hurts him some," said Jotham; "but after that, it is only lying on

his back for a month or so, and his leg is as good as ever. In the mean time he has been kept out of a month's mischief, which is so much clear gain. Ha' Bright! Ha' Golden!"

Jotham said this with the tone and air of one finishing the conversation; so John went back to the other end of the sled. What Jotham had said, however, in respect to the insignificance of the injury caused by a broken leg, did not seem to have had any effect in making him disposed to underrate the danger, for in going back he appeared to take great care to keep a good footing, and always held on well to one stake until he had secured a firm hold upon another.

After a short time the oxen came to the end of the lane, where there were a pair of bars, now open, which led to the pasture. They passed through these bars, and after going on a short distance beyond, they came to the commencement of the descent which formed what they called the coast.

In a little opening among some groves of trees which grew near the top of the descent there stood an old and somewhat rude-looking building, made of logs, and

open entirely toward the south. This building was called the old sugar-house. It was built many years before to contain the boilers and other apparatus used for making maple sugar, but it had been abandoned, and the boilers had been taken away, in order to be placed in a new and better sugar-house, which had been built farther in the woods, at a place which was more convenient for gathering the sap from the maple-trees.

This building was very useful to the children on cold and windy days, especially if the sun was shining; for, as it stood very near the top of their hill, they used to go in there sometimes to rest a few minutes and enjoy the warmth of the sun and the shelter from the wind which the hut afforded, before they commenced a new slide.

It was not windy at all, however, on this occasion, nor was it very cold, and so the children had no occasion to stop at the sugar-house. Besides, as the road was not yet broken, they concluded to go right on down the hill, drawn by the great sled, in order that their small sleds might help the

great one as much as possible to make a good track through the snow.

So they went on down the hill ; and when they reached the bottom of it, they cast off the cords from the big sled, and leaving Jotham to go on after his load of wood, they turned and began to walk up the hill again. On their way up, a serious question arose between Benny and Luly about the turnover. It began by Benny's saying to Luly that he wondered whether his turnover was baked yet.

"It is not your turnover," said Luly. "It is mine."

"No," said Benny ; "you promised it to me."

"No," retorted Luly ; "I promised it to you if you would haul me to the pasture. But you did not haul me. It was the great sled that hauled me. You only held the string. You did not haul me yourself at all."

But Benny insisted that he did really haul her, and was entitled to the turnover.

"You see, Luly," said he, "the great sled did not haul you, because the cord was not fastened to it at all. How could the great

sled haul you when the cord was not fastened to it? The great sled hauled *me*, and I held the cord of your sled, and so hauled you. That is the way it was."

But Luly was not convinced, and so the two children appealed to John and Mary, who were walking a little before them. But John and Mary, after hearing the question, fell into what is called a *tie* in coming to a decision, that is, they were equally divided, one taking one side and the other the other. Mary thought that Benny did haul Luly, and that he ought to have the turnover; while John thought that he did not haul her, and ought not to have it.

A tie like this is a difficulty that is very likely to happen when a question in dispute is referred to an *even* number of persons, such as two or four. Hence, among men, where questions in dispute are referred to other persons for decision, the parties always take care to have an odd number of referees, — such as one, or three, or five, — and then there can never be a tie.

By this time the whole party had reached the top of the hill and were ready for another slide. After taking two or three more

turns they at length, when they came to the bottom of the hill, saw Jotham coming out of the woods with his sled loaded. So they waited for him, in order to attach their sleds behind the ox-sled and get drawn up the hill. On the way up it occurred to Benny that it would be a good plan to refer the unsettled question to him, and so they stated the case. Jotham turned round and walked backward long enough to hear the question stated, and then he turned toward his oxen again, saying,—

“Oh, you must settle your disputes among yourselves, and not come bothering me with them. Ha’ Bright! Ha’ Golden!”

The oxen, on hearing his voice, began to step a little quicker, and so they all went on up the hill.

CHAPTER VI.

THE CAMP-FIRE.

WHEN the children reached the top of the hill, they all went into the sugar-house ; not because they were cold, but only to see the place again and vary their amusement by resting there a little from their sliding and playing.

The front of this little hut, which faced the south, was entirely open, as I believe has already been said. In the back part were the remains of an old chimney. The chimney itself, that is, all the upper portion of the masonry, was in very good order ; but the lower part, where the fireplace ought to be, was all broken away. The truth is, that there never had been any fireplace there, but only two great boilers to boil the sap in. These boilers had been connected with the chimney by means of sheet-iron flues ; and when these were removed, the brick-work, where they entered, had been broken away and left in ruins.

There were two seats across the ends of the hut, made for persons to sit upon when engaged in boiling sap. These seats still remained in their places. One of them, of course, as the hut opened toward the south, took the sun in the morning, and the other in the afternoon.

The children all went into the hut and took seats in the sunniest corner.

"I wish we had a fireplace here," said Mary; "for then we might go and get some wood and build a fire. There is *almost* a fireplace."

John said that perhaps he could make the opening of the chimney into a fireplace, if it was only warm weather, and if he had some bricks and mortar.

"Next summer we will do it," said Mary. "But could not we build a fire here now, on the ground before the chimney? Would not the smoke go up through that hole?"

"No," said John, "not all of it. Enough of it would come out to make the sugar-house so smoky that we could not stay in it."

On a careful examination, John found that it would be very difficult to make a

fireplace there, for the chimney was built up solid for about two feet from the ground, or rather from a very large flat stone laid upon the ground for a foundation. It only began to be hollow at the height where the flues from the sugar-boilers were to come in.

"But we can have a fire outside the sugar-house," said John, "as they do when they camp out. They always make the fire outside when they make a camp."

John had heard of persons having to "camp out," as they call it, for a night or two, in the woods; in which case they usually make a large fire of logs of wood, and then build upon one side of it, and very near, a shelter formed of boughs and branches of trees, to keep off the wind, or to protect them from the rain or snow if there should be a storm in the night.

The children immediately determined to adopt this plan for the sugar-house.

"We will take another slide down the hill," said John, "and when we come up, we will bring all our sleds up loaded with wood, and so have a good fire."

So they took their slide down the hill,

and when they reached the bottom they turned off by the sled-road into the woods, until they came to the place where Jotham was at work. He had come back from the house, and was now loading his sled again.

The children began to look about for dry sticks and other light wood, such as they imagined they could load upon their small sleds; but for a time they were very unsuccessful, for the snow covered the ground, and all the dry and loose sticks were hidden from view.

At last, however, they found some large fallen trees, the branches of which were dead and dry, and were moreover so far decayed that they could be easily broken off. John immediately went to work breaking off these limbs and giving them to the other children, who at once proceeded to drag them out to the roadside near where they had left the small sleds. These they had placed close behind the large sled, in a situation convenient to be attached to it by the cords when they were loaded, so that the oxen in drawing their big load out of the woods and up the hill might draw their supplies of fuel too.

But when they came to putting the wood which they had gathered upon the small sleds and securing it there, they encountered great difficulty. The limbs which they had broken off from the dead tree were so irregular in form, and some of them were so large and branching, that it was impossible to pack them on such small sleds; and even if they had been able to stow them compactly, they had no rope nor any other means of binding them on.

What made the matter worse was, that Jotham had by this time got his load almost made up, and the children were afraid that he would finish it and set off before they were ready; so they hurried as much as they could, and tried every possible way to make their wood stay upon their sleds; but at last they found that Jotham was ready to start, while they were yet all in confusion. John was ready to give up in despair, and, dropping a monstrous branch which he had in his hands, he exclaimed,—

“ Oh, dear me! We can't do it.”

Just at this moment Jotham, with his goad-stick in his hand, came round behind the sled, as if to see what was going on

there. He stood a moment and looked upon the heaps of sticks and branches that were lying on the small sleds, and on the snow around, with a very contemptuous expression of countenance, and then speaking to John, —

“What are you trying to do with all this rubbish?” he asked.

“Rubbish!” repeated John. “It is our wood. We want to get it up to the sugar-house to make a fire.”

There was pause for a moment after this, and then Jotham, handing John his goad-stick, said, —

“Here, take this goad-stick and stand out of the way.”

When John had taken the goad-stick and had fallen back, Jotham began at once to take up the biggest of the branches and throw them up upon the top of his load. Being large and strong, he could do this with great ease. After throwing up all the largest ones, he gathered up the small ones and threw them up too, and in a few minutes had the ground entirely cleared, while all the rubbish, as he called it, lay piled up high upon the top of his wood.

Then, without saying a word to John, he took the goad-stick out of his hand and went round to the oxen, beginning to call out at the same time, —

“Ha’ Bright! Ha’ Golden!”

The children had previously attached the cords of their sleds to the cross-bar and stakes of the big sled; so that when the oxen began to move, all they had to do was to scramble to their places upon the little sleds and be drawn along up the hill.

It is true that there were but three sleds, while there were four persons to ride. But John had the politeness to take Luly on with him, and to hold her safely before him on his sled, all the way up.

When they reached the top, Jotham turned aside a little so as to bring his load up pretty near to the sugar-house, and, stopping the oxen there, he threw off the children’s wood to the ground; and then, starting his oxen again, he drove on toward the house with his load of wood without saying a word.

“Thank ye,” said Benny, calling out after him very loud.

“It does not do any good to thank him,” said Mary.

“Why not?” asked Benny.

“Because he don’t care anything about it. When he does anything for us, he does not care whether we thank him or not.”

By this time John had taken a match-box from his pocket, and was now gathering together some of the small, dry sticks in order to kindle a fire.

He very soon had his sticks blazing, and by piling on more and more, and packing them down as closely as possible, there was soon a very good fire. Mary and the other children helped to put on the wood, taking good care not to go so near the blaze as to set their clothes on fire.

After the fire became pretty hot, John proposed that they should all go into the thickets near by, and break off some branches from the hemlock trees and bushes, and pile them on the fire to make it blaze and crackle. This they did. They all went wallowing on through the snow into the thicket, and presently came out loaded with hemlock branches. These they laid down near the fire, and then went into the thicket again for another load. When they had at length accumu-

lated a sufficient quantity, John began to put the branches upon the fire, while the other children looked on to witness the effect. At first there came up a dense smoke, which rolled upward in prodigious volumes, high into the air, and then floated away among the tops of the trees. But very soon the flame began to burst through with a roaring and crackling which Luly would have considered quite terrifying if she had not believed that the whole operation was completely under John's control.*

The children continued to play about their fire for some time, and then concluded that they would not slide any more, but that the next time that Jotham came up with his sled they would go home.

This they did; but before they reached the house where Mary and Luly lived, John and Benny turned off another way. Benny said it was of no use for him to go into the house, since Luly would not give him his turnover.

The end of the turnover story was somewhat curious, for Benny gave up all claim

* See frontispiece.

to it, and yet he received it after all. It happened thus: —

When Luly got home she found that her pies and her turnover were baked, and were lying all ready for her on the kitchen-table. She did not, however, feel quite satisfied with herself about the turnover, and so she began to complain to Sophronia about Benny's injustice in claiming it. It often happens that when people are dissatisfied with themselves, they show a special disposition to complain of other people. Luly, in finding fault with Benny, explained to Sophronia the whole case. But Sophronia, instead of taking Luly's part decidedly, as Luly had expected, said, —

“ Ah! you ought to let him have it. It was just the same thing to you as if he had really drawn you himself, and it was *his* sled that you rode upon. So I would have given it to him, especially as you have two little pies besides, to say nothing about the slices of big ones that your mother will always give you.”

“ But I don't like the slices of big ones so well as I do my little ones,” said Luly.

"Very well," said Sophronia. "Do as you please."

Luly, however, was not quite satisfied; and after remaining silent and thoughtful for some minutes, she said, —

"I wish I *had* given him the turnover."

"You can send it to him now, if you please," said Sophronia. "I am going over there this afternoon, and I can carry it over."

Luly was much pleased with this suggestion, and determined at once that she would adopt it. So she wrapped up the turnover very carefully in a paper and gave it to Sophronia, and Sophronia carried it to Benny that afternoon.

In the mean time Benny, when he got home, happened to find his Uncle Edward there; and his head being full of the turnover question, he stated the case to Mr. Edward, and asked him whether he did not think that he really drew Luly to the pasture by holding the string of the sled she rode upon, while he himself was drawn upon the large sled.

"Why, that is a very knotty question,"

said Edward, "and very hard to answer. But one thing is clear, and that is that you ought not to have insisted on having the turnover. You broke two rules by doing so."

"What rules?" asked Benny.

"First," said Edward, "that it was a doubtful claim; and we ought never to insist upon doubtful claims against anybody."

"And what is the other rule?" asked Benny.

"Why, that Luly is a lady," said Edward; "and a gentleman in dealing with a lady ought never to *insist* upon any claim at all.

"At least," he added, after a moment's pause, "that is the proper rule for girls and boys, especially in dealing with sisters and cousins, and so I advise you to send word to Luly that you give up your claim to the turnover."

"Well, I will," said Benny.

And so he sent that message by Mr. Edward, who said he was going to Mary's that very afternoon, and would tell her, if Benny wished it. Benny did wish it, and

Mr. Edward took the message ; and thus it happened that he, carrying Benny's renunciation of the claim, and Sophronia, bringing the turnover itself, passed each other on the way.





CHAPTER VII

TOM JINGO.

ONE day pretty early in the winter Luly had a party. The party consisted of four or five children from the neighborhood, whom Luly invited. Mary wrote the invitations for her. Some of the children were girls and some were boys.

The party was in the afternoon, but the shutters were closed and the lamps were lighted, so as to make it look like evening.

The children, when they came together, had quite a good time for a while in running and jumping about from mere gladness of heart and fancying that it was in the evening, though they had just come from the broad daylight outside. After a while, however, they wanted to play, and Luly went out into the other room to find Mary and ask her if she would not come and tell them something to play. So Mary came in, and after playing common plays

with them for a short time, she invented a new play for them, which she called Tom Jingo. The way that she and the children played it was this:—

Mary first called the children all around her, to give them the preliminary instructions.

“ We are going to play the play of Tom Jingo,” said she. “ I am going to be an old woman that keeps a candy-store, and you must all come to me in turn, one after another, to buy candy. When you come I shall ask you what your name is, and you must all say it is Tom Jingo. You must say you have not got any money, and that you want me to trust you for the pay. So I shall sell you some candy, and you must take it, and go away and eat it.

“ Then by and by I shall come after you to make you pay me what you owe me; and you must all run away and hide, or keep out of my way as well as you can; and if I catch any of you, you must say that you are not Tom Jingo, and must show me somebody else that you will say is Tom Jingo, and then I shall go and try to catch him or her.”

The children thought that they should like this play very much, especially as there was to be some candy to eat in the course of it; and they began clapping their hands and capering about the room, while Mary went out to make her preparations.

She went first to the china closet, and there took from the sugar bowl—having first obtained her mother's permission—four or five lumps of white sugar. She wrapped these lumps—one at a time—in a piece of paper, and then struck upon them gently with the pestle, which she took out of the mortar for the purpose, so as to crack them up into rather small pieces. She took care to strike very gently, so as only to crack up the sugar, and not to crush it to powder.

The paper in which the lump was wrapped prevented the pieces from flying away.

When she had thus provided herself with a sufficient number of small lumps,—about enough, as she supposed, to give each of the children two,—she put them into a saucer, and then went to dress herself up as an old woman. She put on one of Benny's straw hats, and tied down the sides of it, so as to

make it look like a bonnet. She also put on a big shawl, wrong side out.

Then she went to her mother and borrowed an old pair of spectacles, which she put on. She found, however, that she could not see very well if she looked *through* the spectacles, and besides they made her eyes ache. So she slipped them forward, down near the end of her nose, and looked *over* them.

When the spectacles were thus properly adjusted, she took an umbrella which she found in the hall, and thus equipped she went back into the room where she had left the children,—who were all waiting, anxiously expecting her. There was a great shout of laughter when she came in.

Mary walked across the room, bending forward very much and sustaining herself by her umbrella, which she used as a cane, as if she were very old and infirm.

She began talking to herself as she walked thus across the room,—speaking, however, in a feeble and drawling manner, which the children thought was very funny.

“I have got me a new supply of candy,” said she, “and I am going to open my shop.

I hope I shall have some good customers. But the trouble is, suppose I sell my candy to people that won't pay. Ah, dear me! what shall I do then? If they don't pay me, I'll catch them and put them into prison, as sure as my name is Ma'am Taffy."

While talking to herself in this way, Ma'am Taffy, as she called herself, had drawn a table up in front of the sofa, and then had taken her seat on the sofa, with the table before her, and was now taking out the lumps of sugar from the saucer, and arranging them regularly in rows along a small sheet of white paper, which she had brought with her for the purpose.

The children thought that the shop was now open; and at length, after some little hesitation and delay to determine who should go first, Benny went forward and said he wanted to buy some candy.

"Well, my dear," said Ma'am Taffy, "and where is your money?"

"I have not got any money," said Benny. "I want you to trust me."

"Trust you?" repeated Ma'am Taffy. "What is your name?"

"Tom Jingo," said Benny.

"Oh, Tom Jingo!" repeated Ma'am Taffy, in a tone of great satisfaction. "Oh, I did not know you, Tommy. I am getting old and can't see very well, and did not know you. I'm willing to trust Tom Jingo, for he always pays me. Here is some candy for you. The price of it is two cents."

So saying, she gave Benny one of the little lumps of sugar, and he, putting it into his mouth, went away, cutting an extraordinary caper at the same time, with joy at having accomplished the business of making a purchase so successfully.

Next, another child came,—a girl,—who wanted also to buy some candy, and, on being questioned, said her name was Tom Jingo.

"Oh, 'Tom Jingo!" said Ma'am Taffy. "I have not seen you this long time. Let me see,—have n't I seen you lately? I 'most forget. I'm getting very forgetful. But I'm glad you have come to buy some of my candy. There 's a piece,—two cents. Give me the money."

"Oh, I have n't got any money to-

day," said the girl. "I want you to trust me."

"Trust you?" asked Ma'am Taffy. "I don't like to trust out my candy much, if I can help it; but I can trust *you*, for you always pay me very well. There 's the candy."

So the girl took a lump of the sugar, put it in her mouth, and went away, and immediately another one came.

This went on for some time, Ma'am Taffy talking all the time, partly to herself and partly to her customers, and varying her conversation with each one so as to keep all the children entertained and amused. She seemed to forget how often Tom Jingo came, though sometimes she half remembered it, and thanked him for being such a good customer.

One of the customers was a lively little girl named Fanny. In talking with Fanny, Ma'am Taffy said that she had been very unlucky lately, especially the evening before, when she had some candy on the fire, and only went out a minute to get some more wood, and when she came back the candy was all burned.

"It seems to me that *this* candy is a little burned," said Fanny. "Is n't it?"

"Oh, no," exclaimed Ma'am Taffy. "It is not burned a bit. It was burned a little when I first took it off the fire; but when I put it away I laid some cotton over it and left it so all night; and that took the fire all out of it. Cotton is excellent for all kinds of burns."

Some of the children laughed very loud at this; but others, who were too young to perceive the absurdity of such an idea, looked very sober, and wondered what the others were laughing at.

Things went on in this way until, at length, all the lumps of sugar were sold and eaten; and then the children, according to the instructions which they had received, began to scamper away and hide in nooks and corners. Ma'am Taffy, at the same time, began talking to herself as follows:—

"There! I've sold all my candy nicely to-day. But it seems to me—— where's my money? (feeling in her pockets). Where can all the money be? Oh! now I remember. Tom Jingo bought the candy,

and is going to pay me. I wonder why he don't come. I wonder where he is. I must go and find him, and make him pay me."

Here the children began to crowd closer into their hiding-places, and to keep as still as possible, — though everywhere there was to be heard the sound of whisperings and suppressed laughter.

Ma'am Taffy left her seat, and began going about the room to find Tom Jingo. She soon discovered and laid hold of Benny, and began at once pulling him out with gentle and playful violence, at the same time squeezing and tickling him, as if she were trying to pinch him.

"You little rogue," said she, "I have caught you. I know you. You are Tom Jingo, and you owe me two cents for the candy you bought of me. Give me my money!"

So, under pretence of getting the money out of Benny's pocket, she tickled him under the arms and in the sides, Benny protesting all the time, as well as he could, — though he could hardly speak on account of his laughing, — that he was not Tom Jingo.

"Then, where is Tom Jingo?" said Ma'am Taffy.

"He's over there," said Benny, pointing to one of the hiding-places.

Ma'am Taffy went at once in the direction indicated, whereupon the children in that place started out and ran away. She caught one of them, however, and treated him much as she had treated Benny, and began dragging him off to jail. Upon his repeated protestations, however, that he was not Tom Jingo, but that somebody else *was*, she soon let go of him and seized another child; and while she was attempting to get the money from him, some other children came out from their hiding-places, and said that they were Tom Jingo, and danced around her, as if in defiance. So she would let go of one and make a rush at another, in rapid succession, until the whole room was full of noise, confusion, and uncontrollable peals of laughter.

At length, after continuing this tumult for some time, Mary suddenly stopped, said "No play," took off her spectacles and her bonnet and shawl, and laid them all down upon the table, and then went

and took her seat in the corner of the sofa, in her own proper character.

The children all liked this play very much indeed. And well they might be pleased with a play which began with eating lumps of sugar, and ended in a great frolic and noise. There were many little children there, too young to understand the meaning of the play at all, but who, nevertheless, liked it as well as any of the rest. They saw Mary dressed up like an old woman, and heard some funny talk, and had some lumps of sugar to eat, and finally had a great frolic of running about, and of being caught and let go again, and of shouts of laughter; all of which they enjoyed very highly, though they knew very little what it all meant. They were, however, unanimously of opinion that the play of Tom Jingo was one of the very best games they ever played.

CHAPTER VIII.

THE JUNK-STORE.

AT the house where Mary and Luly lived there was a large unfinished room over the kitchen and part of the shed, which had in former years been used as a shop. There were two windows facing the south. In front of these windows was a long bench, such as carpenters use. The bench had been allowed to remain, but the tools had been taken away, and the children now used the room as a play-room, especially in sunny days in the winter; for then the sun shone in so pleasantly through the two windows upon the bench, and across the bench upon the floor, as to make the place look warm, although it might really be very cold. And even in cloudy and stormy days the place had a snug and comfortable look, which made it quite attractive to the children as a place to go and play in, especially as there was a swing

there and a rocking-boat, and other means and appliances for exercise and amusement.

Of course, when the children went to this room in the winter, they always wore warm outside clothing, just as if they were going out of doors.

One day in January, Mary and Luly were playing in this room, in company with a little boy who lived in one of the neighboring houses. The boy's name was Richard, but they commonly called him Dickey.

The children amused themselves for some time in rocking themselves in what they called the rocking-boat, which was a kind of box made somewhat in the form of a boat, with seats like the thwarts of a boat extending across it, one at each end, and one in the middle, and two long rockers formed by the two sides. The children used to rock in this boat, making believe that they were out at sea, rocked and tossed by the winds and waves.

Sometimes they would play that there was a violent storm, and then they would rock the boat to and fro with great violence; and at length, when they were tired

of the exertion which this occasioned them, they would play that the storm was abating and the waves going down ; and finally they would allow the motion of the boat to die entirely away. Then they would play that they had arrived at some port, and would all get out and make believe run about on the land, and would talk together in a very animated manner about the strange sights which they saw there, or hold conversations with imaginary custom-house officers, hotel-keepers, and others.

Then, after a time, they would conclude to resume their voyage, and would all embark again on board their vessel, and make believe sail away, rocking themselves to and fro as before.

The boat, when the children were rocking it, especially if they rocked it fast, did not remain always in the same place, but seemed to work itself, as it were, about the floor, so as to take the passengers pretending to sail in it to different parts of the room, or, as they called it, to different countries. At one time it brought them up to the bench ; and when they got out, in pre-

tending to land, Mary's eye fell upon a box upon the bench, which contained a number of pieces of old iron, such as rings, odd castors, nails, screws, and broken tools.

"Let 's play that this is an iron-merchant's," said Mary; "and we will buy a cargo of iron and put into our ship."

So she began to hold an imaginary conversation with the iron-merchant, making bargains for particular pieces of iron, and putting them, as fast as she purchased them, into the ship.

All at once she stopped, as if a new idea had suddenly come to her mind, and said :

"Luly, why could not we have a junk-store, like John and Benny's, and then we could keep store, and buy and sell things whenever we pleased?"

"Only," said Luly, "we have not got any box."

"Mother would let us have a drawer," said Mary. "If she would let us have the lowest drawer in the secretary, or in one of her bureaus, it would be just the thing. Some of these very things would do for the junk."

And here I must explain that the word

junk means, strictly speaking, pieces of old worn-out and broken ropes and cordage, or ends of new ropes cut off as waste in fitting the rigging of a ship. You might suppose that such things would be of no value; but they are in fact all carefully saved and sold as *junk* to men who keep stores for buying and taking care of this kind of material.

If this book were written for boys, it would hardly be necessary to explain what is done with the junk thus collected and saved, as boys generally know all about this. But for girls it may be necessary to explain that the junk is made into oakum for calking the seams of vessels. The bits of rope are all untwisted, and the strands picked open, so as to separate the fibres. The fibres thus separated form a substance like tow, called oakum, which is afterward to be driven into the seams of vessels, to make the joints tight.

In all seaports where ships come in from sea, there are men who keep little shops along the streets which are near the wharves and piers, and buy the junk that is offered to them, in order to have it made into

oakum, when they sell it again at a great profit.

But the men who keep these junk-stores not only buy the junk that is brought to them, but also often do a great business in buying a variety of other things which are useless when held singly by separate owners, but which, when collected in large quantities, become valuable. The things that they buy in this way are rags, bottles, old iron, brass, copper, lead, tin, and other metals, old broken tools, old locks, odd keys, and all such things. Some of these things they sell to be used again, as, for instance, locks and keys, which sometimes accidentally fit together. Or, a man who has lost his key may perhaps find a key that will fit his lock at one of these junk-stores.

In the same manner, if a boy has broken one of his skates, he may perhaps find a tolerable match to the other one among the collection of odd skates which the junk-man will have.

Now, John and Benny had a junk-store in a long shallow box that they kept under a secretary in the back hall at their house.

There was a ring in the front of this box, by means of which they could draw it out when they wished to play with their store. This was what Luly alluded to when she spoke of their not having any box, as a difficulty in the way of their having such a store.

Mary's suggestion, however, of obtaining the use of a drawer from her mother, seemed to remove this difficulty; and so the children, after putting the iron back into the box from which they had taken it, so as to leave the play-room in proper order, went all together down-stairs, Mary leading the way.

Mrs. Gay, after hearing their request, made a number of inquiries before she gave an answer. She perceived at once that it might put her to some inconvenience to vacate one of her drawers, and she was not willing to do it merely to gratify a passing caprice of the children, and furnish them with a means of amusement which would last perhaps for only a single occasion. She was, however, very willing to do it, if the plan was of a kind to furnish a permanent resource for occupation

and amusement on stormy days, and at other times during the winter when Mary and Luly could not go out of doors.

"How long have John and Benny had their junk-store?" she asked.

"Oh, a long time," said Mary.

"And do they play with it much?"

"Yes, a great deal," said Mary. "At least they *have* played with it a great deal; but John don't care so much about it now, because he is getting too old to play keep store. But he goes to the box very often to get something that he wants to use in his shop, about some of his works."

"How did they play keep store?" asked Mrs. Gay.

"They had two boards for counters," said Mary. "John had one and Benny had one. These boards were smooth, and not very long; and they used to put two chairs a little way apart, and lay the board across from one to the other. And this, you see, made a good counter."

"Yes, I see," said Mrs. Gay. "And when they get the counters placed, what do they do then? How do they play?"

"Why, they take the things out of the

iunk-box, and put them on the counters. John takes some of the things for his counter, and Benny takes some for his. Then they go back and forth to each other's stores to buy."

"What do they do for money?"

"Oh, they have got plenty of money," said Mary. "John made it. But I don't know what *we* should do for money. Can you think of anything, mother, that we could have for money?"

The first thing that Mrs. Gay thought of, as a substitute for money, was buttons, and the next thing, button-moulds, which come of different sizes, and can be bought by the dozen on strings for a very few cents. Indeed she said she thought she had a supply of such button-moulds in one of her drawers.

"If I find that I have some," said she, "I will call my drawer the bank, and I will lend you some money from it. Merchants very often borrow money at the bank when they begin their business."

The children were greatly pleased with this suggestion, and Mary said, —

"Then we may have one of the drawers?"

“ Yes,” replied Mrs. Gay. “ I will let you have a drawer, and I will give you leave to look all over the house, in all the closets and drawers; and wherever you find anything that is broken so as to be useless, you may have it for your junk-shop, provided that I may go to it at any time and take out anything that I want.”

This condition was agreed to, and the children at once began to make their collection; and a very odd collection it was, when they got it together, I assure you. It consisted of broken knobs, odd castors that had come off from furniture when a new set had been put on, knife-handles from which the blades had been broken off, curtain-rings, spare keys, many of them broken and useless except for playthings. There was a carpet-hammer without any handle, and a brad-awl handle without any brad-awl, and several knobs, and brass hooks of various kinds, and odd knitting-needles, and other such things too numerous to mention. Indeed all the old broken and useless things that had been lying about the house and encumbering the closets and drawers for years had now sud-

denly acquired a special value; and everything, no matter what it might be, helped to make up the assortment of goods required to open the junk-store in a satisfactory manner.

There were two wine-glasses, with the foot of each broken off, which Mary found on an upper shelf of the china closet. These wine-glasses were somewhat bowl-shaped, instead of being conical, as wine-glasses usually are,—the sides being convex outward, so that they looked like little bell-glasses, with the stem still remaining to serve for handles to take them up by; for the stems had been broken off close to the foot.

When Mary and Luly brought these wine-glasses to their mother to ask if they might have them for their store, she at first thought that they would not be safe play-things, inasmuch as the ends of the stems, where the fractures had taken place, presented sharp edges by which the children might cut their fingers.

The children wished to have the glasses very much, intending to use them for bells. They found on holding them by the stem,

and striking the margin of the glass gently with the blade of a table-knife, that they emitted a very pleasant sound.

"If we could only contrive to hang a round button inside of them for a clapper," said Mary, "they would make very good bells."

"Only," said Mrs. Gay, "every time you attempted to ring them you would be in danger of cutting your fingers with the edge of the glass where it is broken."

"Is n't there any way that we can smooth the glass?" asked Mary.

"Perhaps Uncle Edward can tell you of a way the next time he comes," said Mrs. Gay.

"*I* know of a way," said Mary. "I can put some sealing-wax on the place. I can melt some sealing-wax and put it on, and then round it over and make a little knob."

"That would do, perhaps," said Mrs. Gay. "Or possibly you might grind the roughness off upon the grindstone."

There was a small grindstone in a back-room of the house where Mary lived, which was used for grinding knives and other

household implements, and also sometimes by Jotham for grinding axes and scythes.

The children determined to adopt one or the other of these plans on some future day, and in the mean time went out and found two boards to use as counters. They made the boards serve this purpose by supporting the two ends of each upon two chairs placed at proper distances apart, and then they commenced keeping store. Luly had one store and Richard the other. They were the retailers. Mary stationed herself at the drawer which contained the junk, playing that she was the wholesale merchant, to sell them the goods which they were to put into their stores. They paid for them with the buttons which Mrs. Gay had given them. The large buttons were half dollars, the middle-sized ones ten-cent pieces, and the small ones cents.

The children amused themselves in this way a long time.

CHAPTER IX.

THE GLASS BELLS.

IN the course of a week or two after this time, the children attempted two quite important mechanical operations in connection with the junk-store, — one relating to the bells which they undertook to make, and the other the mending and re-covering of certain paper boxes which their mother gave them.

They succeeded in the end in both these operations, though they encountered some serious difficulties at the outset.

In respect to the glass bells, Mary tried at first to cover the broken end of the stem with sealing-wax, but she found that she could not make the sealing-wax stick to the glass. She succeeded pretty well in melting the sealing-wax in the flame of a lamp, and then in forming a sort of knob or button with it on the end of the stem, but she found that it would not stick there.

When she took hold of it, and attempted to lift the glass with it, the knob of sealing-wax would peel off, leaving the sharp edges of the glass as bare as before.

"Never mind, Luly," said she, when she found that this plan would not succeed. "We will try the other plan. We will grind the glass smooth on the grindstone. That will be a great deal better way."

So they put on some warm clothing, and taking a tin mug full of water with them, they went out to the grindstone. But this plan failed as the other had done. As soon as they poured the water upon the grindstone, the film of water which spread over it was immediately frozen, and then of course the whole surface was covered with a thin coating of ice which caused the end of the glass to slip along when the stone was turned, without being ground away at all.

When they came back into the kitchen, bringing with them the mug and the two glasses, Sophronia was there, and Mary told her that they had been out to grind some glasses smooth, but that they could

not do it, for the water turned into ice as fast as they put it on the stone.

"Of course," said Sophronia, "if you took cold water. Who would ever think of grinding with cold water such sharp weather as this. You ought to have taken *hot* water."

"So we ought," said Mary. "Let us go again, Luly."

So Mary poured out what remained of the cold water from the mug, and Sophronia then filled the mug about two thirds full of hot water, from the tea-kettle on the stove.

"I must not fill it too full," said she, "for fear that you may spill it over in carrying it, and so scald yourselves."

Mary took the mug with the hot water contained in it, and went out again with Luly to the back-room where the grind-stone stood. She poured some of the hot water on the stone, and then, while Luly turned it, she held the stem of one of the wine-glasses upon it in such a manner as to grind off the sharp edges of the glass. By turning the glass in her hand as she held it on the stone, she succeeded in

rounding over the end and in making it smooth and true.

After having finished grinding the first glass, Mary found that the water was beginning to freeze upon the stone. So she poured some more hot water upon it, and then began with the second glass. This she smoothed in the same manner, and then she and Luly came into the house.

"Now," said Mary, "we have got two bells, one for you and one for me, only when we wish to ring them we shall have to hold them up with one hand, and strike them on the outside with something or other, because you see our bells have not any clappers. I wish they had some clappers."

"Could not you make a clapper out of a button?" asked Luly.

"There is no way to fasten it in," said Mary.

Their uncle Edward, however, told them a few evenings afterward how they could fasten the clappers in, and helped them do it. He said it was to be done with sealing-wax.

“But the sealing-wax won’t stick to glass,” said Mary. “We tried it.”

“That is because you did not heat the glass as well as the sealing-wax,” said Mr. Edward. “For some reason or other — I don’t know what — sealing-wax will not stick to anything that is not itself made as hot as the melted wax is that you put on. So if you wish to make sealing-wax stick to iron, or marble, or glass, or anything of that kind, you must heat the thing first hot enough to melt the sealing-wax when it is pressed against it. Then the wax will stick.”

“But sealing-wax will stick to paper,” said Mary, “without our heating the paper beforehand.”

This is true, and there is a curious reason for it, which reason Edward explained to Mary and Luly while they were talking together on the subject, — though I confess I don’t think that Luly understood it very well.

The reason why sealing-wax will stick to paper, pasteboard, wood, or anything of that kind, by being merely dropped upon it hot, is, that those substances are what are

called *bad conductors* of heat. This is a learned phrase, which means that heat cannot pass away easily through them. Thus when sealing-wax is dropped upon a wooden table, for example, in consequence of the wood being in this way a bad conductor, the heat of the wax cannot easily pass down into the substance of it, but remains near the wax, so that that part of the wood becomes nearly as hot as the wax is, and then they both cool together, and so firmly adhere to each other.

In respect to marble, or glass, or iron, the case is different. These are all better conductors of heat than wood or paper, and consequently when a drop of melted wax falls upon them, the heat passes very quick down into the substance of them, and does not remain to heat the part which the wax touches. Thus the wax cools in contact with a comparatively cold substance, and does not adhere.

If, however, you *heat* the marble, or the iron or the glass, beforehand, so as to make it as hot as the melted wax will be, and then drop the wax upon it and leave them both to cool together, the wax will then

Edward explained all this to Mary, and told her that in order to make the wax stick to the end of the glass stem, the glass should first have been heated.

"But that would break it," said Mary.

"No," replied Edward, "not if you heated it slowly. You may heat glass hot enough to melt it without its breaking, if you heat it slowly. It is only when you heat it too suddenly that there is danger, for then one part gets hot before another part, and thus the glass swells unequally, and so is apt to crack."

In further conversation about the bells, Mary asked Edward in respect to clappers for them, and Edward said that he thought that clappers might be put in by means of sealing-wax.

"I will see," said he, "if I cannot put a clapper into one; and you may see how I do it, and then you can try to put one in the other."

So Edward sent Mary to her mother, to borrow her box of buttons. Mary soon returned, bringing a small pasteboard box. It had a cover, though the corners of the cover were all broken apart. On taking

off the cover, the box was found to be half full of buttons of all shapes and sizes. From among these, Edward selected two, one round one and one flat one.

He then took a short piece of fine but strong twine, about two inches long, and tied one end of it to the round button and the other to the flat one. He measured as he did this, so as to make the twine just long enough to bring the round button in the right position to strike the margin of the glass when the flat button should be cemented with sealing-wax into the bottom of it inside.

Then he began to hold the glass near the stove, in the kitchen, to get it warm. As it gradually grew warm he held it nearer and nearer, and when it began to be quite hot he put his gloves on, to prevent its burning his fingers. At length, when it had become *very* hot, he heated the end of the stick of sealing-wax in a lamp which Mary held for him, and carefully dropped five or six drops of the wax into the bottom of the wine-glass.

The glass being very hot, the wax remained melted in the bottom of it, and

united itself intimately with the glass. Mr. Edward then took the two buttons, which, as has already been explained, were united by a short piece of twine, and, holding the round one in his hand, he let the flat one down gently upon the stove and allowed it to remain there a moment until it became hot, and then he lowered it down carefully into the wine-glass until it reached the wax and sank into it. He took care to cause it to settle into the wax as nearly as possible in the middle of the glass, and when it was thus adjusted he carried the whole away toward the window, to let it all cool. He held the round button in his hand all the time, to prevent the string from falling down into the soft wax.

In a few minutes the wax was cool, and then turning the bell over, with the open part down, he found that the clapper was kept in its place very well, and that the bell would ring nicely.

"Let me take it," said Luly, eagerly, and holding up both hands; "let me ring it."

"No," said Mary; "let *me* take it."

"Luly shall have it first," said Mr. Edward, "for she is the youngest. It is a

matter of indulgence. In matters of command and duty the oldest takes precedence in matters of indulgence, the youngest."

So Luly took the bell, and began running about and ringing it, — apparently greatly pleased with the result of the operation.

Presently she gave it to Mary, who rang it too, and examined it attentively in every part, and then immediately undertook to prepare the other glass in the same way. Only her Uncle Edward advised her that instead of melting the sealing-wax separately, and dropping it into the bottom of the glass, she should break off a small piece and lay it in, and then melt it through the glass, by slowly and carefully heating the glass.

"In this way," said he, "you will avoid the danger of dropping the hot sealing-wax on the stove or on the floor."

Mary accordingly adopted this plan. She selected two buttons, one round and one flat one, and tied them together with a piece of twine. Then she broke off a piece of the sealing-wax and put it into the bottom of the glass; and finally, after heating

the glass very carefully over the stove until the wax was melted, she let the flat button down into it, until it was well imbedded in it, when she carried the whole to the window to let the wax cool. Her bell was then complete, and it was as good as the one which Mr. Edward had made.

Mary kept the bell which she made for herself, and gave the other to Luly, and they played with them a great deal, when keeping store, and also at other times. When playing store, each of the girls would keep her bell on her counter, and ring it when she opened the store, and also again when she shut it up, to make believe go to dinner, or for any other purpose. Luly, in fact, used to open and shut her store very often, for the first few days, just for the purpose of having a pretext for ringing her bell.

CHAPTER X.

THE ART OF TEACHING.

MARY succeeded very well in teaching Luly to darn. In fact, she managed the business with a great deal of tact and skill. She took care never to call her away abruptly from any work or play in which she was interested. She also usually let Luly darn when she was darning herself, because she had observed that little children generally like to do what the older ones are doing. It would accordingly have been bad management, she knew, to have set Luly at work to darn while she was making pies, or doing anything else which Luly would like to do too.

Another thing in which she showed her dexterity was in allowing Luly to stand and look over her while she was darning, to see how the work was done, talking to her all the time in a playful and amusing manner. When she was weaving in the

cross-threads she would address the needle as if it was a living thing, calling it Sharpnose and little Rogue.

"Now, little Sharpnose," she would say, "mind that you come up and go down in the right places. Under the first — over the second — under the third — over the fourth," and so she went on as the point of the needle appeared and disappeared among the threads. Then she would make a mistake on purpose and bring the point of the needle up in the wrong place, so as to take up two threads instead of one, and would say, "Ah, you little Rogue, what are you coming up there for? That is not right. Go back, you little Rogue, and come up right!"

In this way Luly's imagination was entertained, and her interest in watching the progress of the needle was greatly increased, and the proper way of managing it was fixed strongly in her mind; and when she went to work herself, she conceived of the needle as a living thing, and talked to it just as Mary had done.

Another thing that Mary did I think was very wise, and that is, she did not

find fault with Luly for making mistakes. She did not even point out the mistakes when Luly made them, but let them go, and only showed her when it was done right. Some people think that you must necessarily tell children when they have done anything the wrong way, or else they can never learn the right way; and this is true no doubt in some cases. But it is not generally true,—for if you say nothing about the places where they have done the work wrong, but only show them where they have done it right, this will lead them on into the right ways, and the wrong ways will of course be left behind, and so pass out of mind and be forgotten.

One of the greatest obstacles to the success of older children in teaching their younger brothers or sisters is their discouraging them by pointing out too particularly the errors and imperfections of what they do, when they have tried to do as well as they could. If children do not try to do as well as they can, or if they wilfully or intentionally do what is wrong, then certainly they are to be censured or even punished. But when they have done as well

as they can, and the faults and errors that they have fallen into only arise from their ignorance or inexperience, or their want of practice and skill, then the less we call their attention to their faults and failures the better.

There were once two cousins named Susan and Jane, each of whom had a little sister whom she called Tottie. Each of them undertook to teach her sister to sew. Both were very kind and considerate, and were very gentle in their management, but Susan went on the principle of pointing out *her* Tottie's faults and mistakes, in order that she might avoid them the next time, while Jane's plan was to let the faults and mistakes be forgotten as soon as possible, and lead *her* scholar on into the right way, by just showing her how far she was right already, and explaining the right way for what came next.

Each began by giving to her sister two pieces of cloth to sew together, and both the children succeeded very well, considering that it was the first time they had attempted to use a needle.

When Susan's sister came to show her

the work which she had done, Susan took it and looked at it, and seemed not quite satisfied with it, though she determined not to say anything to hurt little Tottie's feelings. So she said,—

“ Well, Tottie, this is pretty well, considering; but you ought to make the stitches nearer together and make them all alike. See! *these* stitches are too far apart, and too coarse. And *these* too. These are very coarse indeed. You must take smaller stitches and make them closer together. See. I'll show you how.”

So Susan took the work and made some fine stitches as a pattern, making them as fine and as close together as she could,—altogether too much so for Tottie to have any reasonable hope of being able to imitate them.

When Susan gave Tottie her work again she went away with it, and threw it down upon the sofa, saying she did not want to sew any more. And the next day, when Susan proposed to her to take another lesson, she said that she could not sew, and it was of no use to try.

But Jane, when her sister brought her

the work which she had done, although it was not done any better than the other, seemed entirely satisfied with it. She *was* really satisfied with it, for it was a very good first attempt—very good indeed.

“Ah, yes,” said she; “you have sewed the pieces together the very first time. See,” said she, “see how tight together they are.”

So saying, she tried gently to pull the two pieces apart, to show Tottie that she had actually sewed them together.

“The pieces were separate before, and you have sewed them together pretty strong, and made a seam. You made a seam the very first time. I should not wonder if you had even made some pretty good stitches. Let us see.”

So Jane began to examine the work to find good stitches, and, selecting the best, she showed them to Tottie.

“There,” said she, “the next time very likely you will make almost all the stitches as good as these. To-morrow I will give you two more pieces, and let you try again.”

"Give them to me now," said the child
"I should like to sew some more now. I
am not tired."

In a word, Jane's plan was to allure her pupil onward by showing and commending what was good ; while Susan's method was that of driving her, as it were,—though very gently and kindly,—by pointing out and censuring what was bad. It is needless to say which was likely to be the most successful way.

One day when Luly was going to put her work away, she said she wished that she had a box or something to keep her things in,—her needle, her little ball of yarn, and the work that she was doing. Mary thought that this would be a very good plan, and she went to ask her mother to give her a box.

"Yes," said her mother, "I will give you a box. You may go up-stairs and look in the box-drawer and see if you can find one there that you think will do."

The box-drawer, so called, was a pretty large and deep drawer in the lower part of a kind of wardrobe or clothes-press which stood in a wide passage-way up-stairs, and

was used for containing linen, blankets, and the like. The press had shelves and doors above and drawers below. One of these drawers was used as a place of storage for paper and pasteboard boxes of all kinds.

People often receive such boxes; they come in various ways into a house, and usually are knocked about till they get broken up and destroyed. But Mary's mother had this drawer to put them in, and thus carefully preserved them, so that if at any time she wished for a box of any kind, she had only to go to this drawer, and she was almost sure to find there very nearly what she required.

So the children went up on this occasion to the box-drawer, and on opening it they saw a great variety of boxes within. On one side were some very large ones, placed one within the other to save space, — thus forming what is called a nest of boxes. There were some round boxes and some square ones, and some that were very small, such as pill-boxes that had come from the apothecary's, and several little square ones that had contained articles of jewelry or

other small objects of value. There was one quite long and narrow one which had contained a small gold pencil-case that John had sent to his cousin Mary as a present on her birthday.

The children looked over the assortment of boxes, and finally chose one which had formerly contained Rochelle powders, or something of that kind. Luly was at first inclined to take a much larger one, but Mary told her that one just large enough to contain her work would be most convenient.

One of the corners of the cover of this box was broken open. Paper boxes are very apt to break in this way unless they are properly strengthened with cloth. Sometimes people *sew* the corners, but that is not a good way to mend them. In the first place it is not a strong mending, for the stitches are likely to tear out again pretty easily; and then, besides, it does not look well. Even if you cover the place with paper pasted over, to conceal the stitches, they are very likely to show through.

Thus this mode of mending is neither strong nor pretty, and of course is not

to be recommended. The children, under John's guidance and direction, adopted a much better method for repairing and improving the box which Luly chose.

What this method was will be explained in the next chapter.

CHAPTER XI.

PASTE, GUM, AND GLUE.

BEFORE describing the plan adopted by John and Mary, in fitting up Luly's box, I must make some scientific explanations which those children who do not care about learning anything, but only read books for the sake of being amused for the time being, might as well skip perhaps. If they do not skip it, however, but read it attentively, it will teach them some things that will be a great help to them when they are making anything of paper or pasteboard, as for example when they are mending boxes or making kites.

There are three quite different substances which are used to produce adhesion, that is to make things adhere, or stick together, in working in paper, pasteboard, and such things, — namely, paste, gum, and glue. Paste is the easiest to use, but glue sticks

the best, and gum comes half-way between the other two in both respects.

First, paste is the easiest to use. It is very cheap, being made of flour, which is always at hand, and can be put on with a big brush over a great surface very fast. So people always use paste when a great deal of work is to be done, as for instance making a kite, or covering a large box, or papering a room.

Nobody would ever think of papering a room by means of gum ; because, in the first place, it would be very difficult to put on such a large quantity of gum smoothly and evenly ; and then, in the next place, it would cost so much, on account of the gum being so much more expensive than the flour.

But if you wish only to fasten some small thing, as for instance to seal a letter, or to fasten a picture by the corners into a scrap-book, then gum is very good. It holds a great deal better than paste for such small things, and for small quantities the cost does not amount to anything worth considering.

Gum must, however, be very thick to hold well. If it is thin, it will scarcely

hold at all, unless the two things that are to be gummed together are put into some kind of press and kept pressed together very tight until the gum is entirely dry.

Gum holds better than paste, but glue holds very much better than gum. Thus glue is used to unite two pieces of wood together, and if the work is done properly, when you attempt to pull the two pieces apart by great force, the fibres of the wood itself will be torn apart, along the sides of the place where it was glued, rather than the glue itself give way.

But then glue, though it holds so well, is somewhat troublesome to use, unless you have the proper conveniences for it. In the first place it must be used hot. Gum can be dissolved in cold water,—and when it is intended to be kept on hand it always ought to be dissolved in cold water,—which can be done by putting it into a bottle and pouring in enough cold water to cover it, the day before you wish to use it.

But if you put glue into cold water in this way, it will only swell and form a sort of stiff jelly. If, then, you heat this jelly, it becomes liquid, and in that state can be used.

But it must be used while it is hot; for if you let it get cool, either in the vessel that you dissolve it in, or on the work before you put the parts together, it turns into a jelly again, and so will not hold at all. To make glue hold well it must be hot when it is put on, and then the parts of the work must be put together while it remains hot, and held tight together until it has time to get dry, or at least to cool and consolidate firmly. All this requires so much care and attention that it is much more difficult to use glue than to use gum or paste.

Mary and Luly did not understand these things very well, but John understood them, and so they determined to wait until he could help them before they undertook to mend Luly's box. Accordingly one day about midwinter, when they were at their aunt's, they asked John to come the next Saturday afternoon and help them repair the box and cover it anew, and he said he would.

"And bring some glue with you," said Mary.

"Very well," said John.

"And some pretty paper to cover the box with," said Luly.

"Very well," said John.

"And a picture for the top," added Luly.

"Very well," said John. "I will bring all that is necessary. But how big is the box?"

"So big," said Luly, measuring with her hands.

"Very well," said John.

When Saturday came it brought with it a great snow-storm. The storm began in the morning, and by noon the roads were so blocked up that Mary and Luly thought that John would not come. When the time drew near they went to the window to look out for him; but the air was so thick with the driving snow, and the glass of the window was so obscured by the flakes which struck upon them outside, and were melted and made to trickle down by the heat from within, that scarcely anything could be seen.

At one time they heard sleigh-bells, and they thought that John was coming in the sleigh. So they ran to the window to see. The sound of the bells stopped as soon as

they reached the window, and on looking out they saw that it was a strange sleigh drawn by two horses, that was going by, and that the horses had got into a deep drift, — so deep that they could not get along.

The sleigh was loaded with boxes and bags, and a man with a fur cap and a red comforter about his neck was sitting upon the top of the bags, driving. When the children first came to the window he was just preparing to get down from his seat to help his horses.

When he slipped down off the sleigh he sank into the snow up far above his knees. He then went wallowing along till he had got before his horses, and there began trampling down the snow along the road to make a way for them. When he had broken through the drift in this way, he went back and took his seat on the bags again, and his horses went on. They moved slowly and apparently with great difficulty, but were soon out of sight and hearing.

The children then went away from the window, but not long afterward their attention was attracted by the sound of a great stamping of feet on the piazza.

"There is John," said Mary, running to the window.

True enough. It was John ; he was shaking and brushing the snow off from his cap and clothes, and stamping it from his boots. Pretty soon he opened the door and came into the entry. Then he opened the inner door, but instead of coming in he reached in his hand with a roll in it and said, —

"Take this roll and bring me a clothes-brush as quick as you can."

He then immediately shut the door again ; and when Mary brought him the clothes-brush he opened the door just wide enough to receive it, and then went back out upon the piazza.

The reason why he did this was to keep the snow cold and dry, so that he might brush it off easily, instead of coming with it into a warm room, and letting it melt and wet his clothes.

"John," said Luly, when he at length came in, "why did n't you ride here in the sleigh ? The snow is too deep for you to walk."

"Hoh !" said John, "a big boy like me

can get through deep snow a great deal better than a horse can."

"What is there in this roll?" asked Luly.

"Some pretty paper," said John, "to cover our boxes."

"Let me see it," said Luly.

"No," replied John, "not till we have got our shop ready. The first thing is to make our shop."

So saying, John began to lead the way toward the kitchen. The kitchen was all in nice order, there was a good fire in the stove, and Sophronia was seated at a window, sewing.

"Sophronia," said John, "will you lend us your ironing-board for a bench? We are going to have a bookbinder's shop."

"Yes," said Sophronia.

So John and Mary went out into a back room where they knew the ironing-board was kept, and brought it in. One lifted at one end and the other at the other, — Luly running along by the side, trying to help. When they had brought the ironing-board into the kitchen, John placed two chairs facing each other, and at a proper distance

apart, and then laid the ironing-board down upon them, one end upon each chair, so as to make a long low table. Then he and Mary brought three little benches or stools, of the kind sometimes called crickets, — and the shop was complete.

“Now,” said John, “I will unroll my roll of paper, and let you see what I have got.”

So John unrolled the roll, and brought to view a number of sheets of paper of various colors, and of different shapes and sizes. They were of the kind called fancy papers, being ornamented with pretty patterns of various kinds. One sheet was entirely red, of a very bright and pretty hue.

There was a small sheet of gilt paper, and several colored pictures, not quite so large as the top of Luly's box.

All these sheets came out very smooth, being not at all tumbled, for they had been rolled upon a round stick, — part of a broom-handle which John had sawed off for the purpose. By rolling his fancy paper and pictures upon this round bar, he had effectually prevented them from getting crushed and the paper broken, in the rough hand-

ling which the roll would be likely to get in being brought so far in his hand, through a driving snow-storm.

“ Now, Mary,” said John, “ have you got a glue-pot in the house ? ”

“ No,” replied Mary, “ but I have got a gum-bottle.”

“ Well, bring your gum-bottle,” said John. “ But we shall need a glue-pot too. I must make a glue-pot.”

“ Won’t a little cup do ? ” asked Mary.

“ A cup will do for part of it,” said John ; “ but there must be something else besides. It must be double, — glue-pots are always double.”

CHAPTER XII.

ABOUT HOT WATER.

WHAT John meant by saying that glue-pots were always double was this, that they always consist of two vessels, one of which is set within the other. The inner one contains the glue, and the outer one water, which serves to prevent the glue from burning when it is over the fire.

The reason why the water in the outer vessel prevents the glue from burning is, that only a certain quantity of heat can pass through water, and that is not enough to burn glue, or candy, or sugar, or anything else of that kind that is put over the fire. Accordingly, if you wish to keep anything from the possibility of burning when you are boiling it over a fire, you have only so to arrange it as to have a stratum of water between it and the fire.

This is done in the case of glue by having the vessel double. The inner one con-

tains the glue. The outer one is filled with water ; and thus there is a stratum of water between the melted glue and the fire, which prevents the glue from ever becoming too hot, however hot the fire may be.

Water will keep anything from becoming hot above a certain degree, however hot the fire may be under it. If for example you should put some lead into a kettle or a skillet that had water in it, and then put the skillet over the hottest possible fire, you could not melt the lead in the water, — for the lead could not get hotter than the water was that was around it, and that would not be hot enough to melt the lead.

The greatest heat that water can ever have in ordinary cases is two hundred and twelve degrees by the thermometer. But lead will not melt until it becomes as hot as *six* hundred and twelve degrees.

There is a very curious reason why water will not become hotter than two hundred and twelve, or rather a very curious operation takes place which prevents it. It is this. Suppose a kettle with cold water in it is put over a hot fire. The heat from the fire immediately begins to go into the iron

which forms the bottom of the kettle, and through the iron up into the water above. The water begins to grow first warm and then warmer. When it gets as high as *one hundred* by the thermometer, it would feel quite warm to your hand, but not hot. When it gets to one hundred and fifty, it would be scalding hot; and when it reached to just about two hundred and twelve, it would be as hot as it could be. No matter how hot the fire was under it, or how long the heat should be continued, the water would never become any hotter than two hundred and twelve degrees.*

And yet all the time the heat would be going up from the fire through the bottom of the kettle into the water. What then can be the reason that the water does not get any hotter? Where does all the heat go to?

It goes to making steam, and the steam goes off up the chimney, carrying the heat with it.

The way it operates is this. As fast as any portion of the bottom of the kettle gets above the heat of 212° ,* the water that

* The usual way of expressing the degrees of the thermometer is by putting the little figure $^{\circ}$ after the number. This figure means degrees. Thus 212° means 212 degrees.

touches it is turned into steam, and in turning takes up a great deal of heat, for steam has the power of taking up a great deal more heat than water.

The steam when it is formed, being a great deal lighter than water, rises in a bubble up to the top, and then breaks out and goes up the chimney, carrying the heat up with it. This process goes on all the time, and of course prevents the bottom of the kettle from ever becoming much hotter than 212° .

This is the reason why water will put out fire. It takes all the heat out of the fire by changing itself into steam, and carrying the heat off up into the air, and then of course the fire goes out.

When a house is on fire and the engines come and pour on water, the heat of the fire is all taken off into the water and carried up in the air in steam, and there floats away among the clouds.

There is a possible way of making water hotter than 212° , but not by putting it in an open vessel over a hot fire, or pouring it upon burning coals. The way is to shut it up in a very tight and strong vessel, so that

no steam can get out to carry away the heat. If the water is open and free, then as soon as it gets to 212° the steam will form and carry away the heat as fast as it comes in, and the water will never get any hotter.

When people wish to make water hotter than 212° , as the philosophers do sometimes in making their experiments, it is necessary to make the vessel that they shut it up in very tight and strong indeed, or else they will not succeed. It must be very tight, for the smallest crevice is sufficient to let the steam escape and carry off the heat. And if it is made perfectly tight it must then be made very strong, or the steam will burst it open, in order to make its escape.

When a tea-kettle is on the fire, and is boiling, the steam that carries off the heat gets out, some of it through the nose of the kettle, and the rest through the small crack around and under the cover.

It follows from this circumstance, namely, that water when open and free can never be made hotter than 212° , that nothing — at least no common substance — can *burn*

when there is water around it, — between it and the fire, — no matter how hot the fire may be. For no common substance can burn until it gets hotter than 212° ; and no heat greater than that can be made to pass through the water.

Accordingly, to make a glue-pot that shall always be safe, even when the carpenter places it on a hot stove, and goes away and leaves it there for a long time, while he is at work on something else, they put the glue in one vessel, and then set this vessel in another which is partly filled with water. Thus the water rises all around the vessel that holds the glue, and keeps it from ever getting above 212° .

But if the carpenter forgets his glue entirely, and leaves it on the hot stove too long, so that all the water in the outer vessel has time to boil away, then the protection for the glue is gone, the heat comes up through both vessels, and the glue soon begins to burn.

Once I knew a boy, whom I will call Samuel, that bought a little glue-pot made of tin. There was an inner vessel for the glue, and an outer one for the water, and they fitted very nicely together.

Both vessels were soldered, as tin things usually are, with a kind of solder which melts at about 360° of the thermometer. This you see is much hotter than the hottest water, but not nearly so hot as the melting of lead, which is 612° .

Of course so long as any vessel the joints of which are formed of a solder that melts at 360° , has water in it, the joints will not melt, no matter how hot the fire is that is under it.

Samuel's glue-pot was accordingly as good as any for the use intended, so long as he took pains to keep water in the outer vessel. But one day, when he had set his glue-pot on the stove in order to melt some glue for certain work that he was going to do, he thought he would go out and slide a little while it was melting. There was nobody in the kitchen at the time, for it was the middle of the afternoon, and the girl had gone away. He took care, however, to fill the outside vessel full of water, which he thought made it all safe.

It *was* safe in fact for an hour or two, but Samuel found a number of other boys at the sliding-place, and he became so much

interested in sliding that he stayed out longer than he expected, and when he came in and opened the kitchen-door, he found the room full of smoke, — a kind of smoke, moreover, which had a most horrible smell. He ran to the stove, and there he found his glue-pot all in ruins on the stove, and the parts of it lying in the midst of a black mass, like pitch, hissing and bubbling, and sending up fresh volumes of smoke as it burnt away.

The truth was that the water in the outer vessel remained faithful, and protected the glue, until it was all expended in carrying off the heat by changing it into steam, in other words, until it had all boiled away. Then when it was all gone, the heat coming up from the stove had now nothing to oppose it. It first melted away the solder from the outer vessel, and made it fall to pieces. The inner vessel with the glue in it then fell down upon the hot iron, and the solder of that was soon melted too; then all the glue ran down over the tin pieces, and upon the stove, and began to burn, and things were in this condition when Samuel came in.

Glue-pots are generally made of copper or of iron, without any solder, so that if at any time the water gets out, the worst that can happen is that the glue gets burnt to a cinder, and you then have the trouble of scraping it all out before you can use the glue-pot again; but the glue-pot itself is safe.

This is the philosophy of glue-pots and glue,—a philosophy which all children, girls as well as boys, ought to understand. You must try to remember too at what degree of the thermometer water boils, and also at what degree lead melts, though this last is not so important. It is very important to remember at what degree water boils, and also at what degree it freezes. It freezes at 32° ; and that is also the degree at which ice or snow melts: that is, when the weather is cold and is growing warmer the ice begins to melt when the mercury in the thermometer passes 32° in going up; and when the weather is warm and is growing colder, ice begins to form when the mercury passes 32° in going down.

Thus 32° is the freezing, and 212° the boiling point of water. Try to remember both of them.

CHAPTER XIII.

THE BOXES.

AFTER looking about for some little time in the kitchen-closets, Mary and John found a small mug, of brown ware, and also an old tea-cup without a handle, of just such a size, relatively to each other, that the cup would set in the top of the mug, and go down into it so low that only the rim of it was above the rim of the mug.

When it was in this position there was of course a considerable space beneath the cup, and around the sides of it, within the mug, for holding water which was to keep the glue from burning, while the glue itself, and the water in which it was to be dissolved, could be put in the cup.

“There!” said John. “That is just what we want for a glue-pot, — the cup to hold the glue, and the mug to hold the water around it, — if auntie will only let us have these things.”

"Oh, yes," said Mary. "She will let us have them, I am sure."

"You must go and ask her," said John. "The best rule is not to begin to use anything till we are sure we have a right to it."

So Mary went into the parlor, and soon returned and reported that her mother said she would give them the cup and the mug to do anything they pleased with them.

Mary also brought out her gum-bottle; but it was not in very good condition; the mouth of it was so incrustated with gum which had dried on, that the cork would not go in very well; and the brush, which was fastened to the cork so as to go down from it on the under side into the bottle, did not reach quite to the gum, and so was dry and hard.

"Now," said John, "the first thing is to put the glue on the fire, and the next thing will be to put your gum-bottle in good condition."

In order that the glue might dissolve quick, it was necessary that it should be broken in pieces; and in order to prevent the pieces from flying about under the ham-

mer, John wrapped the glue first up loosely in a paper, and then struck it with the hammer through the paper.

"Why did not you take the mortar?" asked Mary.

"Ah," said John, "I did not think of the mortar. That would have been better; but this way will do."

He put the small fragments of glue in the cup, and then poured some hot water over them from the tea-kettle. Then he filled the mug two-thirds full of water, and set the cup in its place in the top of it, and finally set the whole upon the stove to keep it hot until it should be dissolved.

While the glue was dissolving, John put the gum-bottle in order. He took out the cork, separated the brush from it, put both into a basin of warm water to soak, and then with his knife peeled off all the dried and indurated gum from around the mouth of the bottle, both inside and outside, and put what he thus obtained down into the bottle, where it might be dissolved again.

"And now," said he, "I must put in a little more water to make your gum thinner.

Generally, the gum in bottles is too thin, but yours is too thick."

Mary's gum was very thick indeed; in fact, it was almost dried up.

Leaving the gum and the glue to dissolve, and the brushes to soak, John now proceeded to lay out the work on the ironing-board.

"Now," said John, "if we only had two boxes, you could cover one, Mary, while I am covering the other."

"Well," said Mary, "there are plenty more up in the box-drawer."

"And one for me too," said Luly.

"Yes," replied John. "We will find one for you too."

So the children all went up-stairs, and there from the stores in the box-drawer they selected two boxes, — one of the same size with the one which had already been chosen for Luly's work-box, and another much smaller one for Luly herself to cover. With these boxes in their hands they went to Mrs. Gay to ask if they might have them, and then returned to the kitchen, bringing with them also three pairs of scissors, which Mrs. Gay lent them.

There were several other things that John said would be required for their work, and these he said must all be got ready before the work was begun.

“It is a sign of a bad workman,” said he, “to have to be jumping up and going away to get things that you want for your work, after you have begun to do it. The rule is, get everything ready before you begin.”

So John went on with the work of getting things ready. Mary was surprised to find how many things were required. Among others was a ruler and a pencil, three brushes, a newspaper, — which John carefully divided by folding it repeatedly and cutting through at the fold with a paper-cutter, until he had divided it into oblong pieces, a little larger than a side of the largest boxes, — and also a saucer to pour out the gum into.

Mary also procured three towels, one for each of the company. These were to wipe their fingers upon, when they should accidentally get any gum or glue upon them.

It took so much time to get all these things ready that Mary began to be somewhat impatient.

"If it takes us so long to get ready," said she, "we shall be forever in really doing the work."

"No," said John. "To be a good while in getting ready is a sign that we shall do the work quick when we really begin."

At length all was ready, and the children took their seats. John and Mary sat upon one side of the board, and Luly on the other.

"Now, Luly," said John, "all the questions you ask me you must ask with your eyes."

"I don't know what you mean," said Luly.

"Or with your ears," said John.

"I don't know any better now than I did before," said Luly.

"I mean you may look and listen as much as you please, but talk very little. See what I do, and hear what I say, and act accordingly."

So saying, John began the work, and went on with it step by step, explaining what he did as he went along, and giving Mary and Luly the necessary directions for doing with their boxes what he did with his. He first



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cut out some pieces of linen cloth, which he had provided for mending the corners of the boxes where they had been broken, and for strengthening them where they were still whole. These he put on with glue, taking care to have the piece that was put on large enough to lap over about half an inch each side of the joint. He did this to all the corners of his box, both those of the cover and those of the box itself.

He used one precaution, however, in putting on these corner-strengtheners, which I advise all children to adopt who may ever attempt to cover boxes in this way; and that is, that in putting on each piece he only glued it upon one side of the corner at first, and waited till that was nearly dry before he brought it over and glued it to the other side. Thus he went all around his box, and glued a little piece of cloth upon one side of each corner, leaving half of the cloth free, until the first gluing should be dry. By the time that he had got round, the first one was ready to be finished, for the cloth was now quite firm on one side of the corner, so that by putting some glue with his brush on the box at the other

side he could carry the end of the cloth over and draw in the parts to their places, and confine them there much better, on account of half of the work being already dry and strong.

There was another thing that I must mention. He did not attempt to cut out these corner-pieces of exactly the right size before he put them on, for if he had done so it would have been necessary for him to take great pains to get them on exactly right, which is a troublesome thing to do with anything that is glued. All he did in the first instance was to be sure to have the pieces long enough, and thus in putting them on he had only to see that the joint was well covered, and then when they were dry he trimmed off the surplus cloth, where it projected, with the scissors.

"There," said he, when the joints of all the boxes were well covered in this way, "now the boxes are strong. The corners won't break open again, as they did before."

"They may be strong," said Luly, "but I don't think that they are pretty."

"Ah," said John, "they are not pretty

now, because they are not finished. You will see how much prettier they will be when they are finished."

John then proceeded to cut out some strips of green paper, about half an inch wide, and as long as the boxes. After he had cut out several of these, he made some more of red paper, and finally a third set, though these last were shorter, of gilt paper.

"What are you going to do with all those little ribbons that you are making?" asked Luly.

"Ah," said John, "you must ask your questions with your eyes. Wait and you will see. The gilt ribbons are for you, and the green and red ones are for Mary and me."

"Let me have the green ones," said Mary.

"Very well," said John; "you shall have the green ones; I will take the red ones."

John then proceeded to gum one of his red strips, laying it down first, with the red side down, upon one of the pieces of newspaper, which he had previously placed in a proper position before him on the table. By this arrangement the brush, when it

passed beyond the edge of the strip, went only upon the newspaper, and so did not soil the table.

Mary and Luly did the same with their strips.

"We don't gum the strip quite out to the ends," said John. "We leave a little place to take hold of."

Then taking up the strip by the two ends thus left dry, John proceeded to lay it down along the angle formed by the top of the cover of the box and the front side, and then to pat it down all along with his towel.

The strips had all been made a little longer than the boxes, so that, when they were put on, the ends, which had not been gummed, projected a little. These ends John now trimmed off with the scissors.

The children did the same with the ends of their strips.

John observed that Luly had not put her strip on perfectly straight. Indeed Luly perceived it too, and was beginning to look troubled about it when John said, —

"It is no matter if we do not get these strips on perfectly straight. If the corner

is covered all along, that is all that is necessary. No matter if the strip comes over a little farther on one side than the other, for the side-pieces that we shall put on by and by will cover the edges of the strip, and leave just as much of it to show, along the corner, as we wish."

"Oh!" said Luly, in a tone of satisfaction.

In the same manner John proceeded in applying the other strips to all the other corners of the box. Some of the strips required were very short, as for example those that went up and down; but John cut pieces of the right length for these places, making allowance for the ends that were not to be gummed, in order that there might be dry places to take hold of.

The children did the same with their boxes, until at length all the corner-edges were covered,—John's with strips of red paper, Mary's with green, and Luly's with gilt. Of course Luly's strips were not put on very well; but as they were of gilt paper, they looked so bright and gay that she was very much pleased with them.

After having covered all the edges of the

boxes in this way, John said they must now cut out pieces to cover the tops of the boxes, and also the sides and ends.

"We are going to have pictures for the top," said Mary.

"So we are," said John; "and we only want paper for the front and back, and for the ends."

So they all began to look over the different kinds of fancy paper which John had brought, in order to select what they severally preferred for their boxes. In choosing the papers they not only looked for what would be pretty in itself, but also for what would contrast well with the strips which they had put on along the edges. When they had all chosen what they liked best, they cut out pieces of the right size, and gummed them on, John leading the way and showing the others, step by step, how the work was to be done.

Of course these pieces were made somewhat smaller each way than the side or end of the box which they were to cover, so as not to come quite out to the edge, but to leave a proper width of the binding which they had put on along the edges, to show.

The last thing was to put the pictures upon the top. The colored engravings which John had brought were of very nearly the right size for his box and for Mary's, but they were too large for Luly's. This, however, made but little difficulty.

"Because," said John, "I can cut one of them down."

"But that will spoil the picture," said Mary.

"No," said John. "It will cut away a part of it, but what is left will make a pretty picture of itself for Luly's box."

"But then it will look unfinished when you have cut it," said Mary.

"No," said John, "for we shall put a little border of gilt paper around the margin of every picture, close to the color, and then they will all look like painted pictures in gilt frames. Painted pictures almost always come out to the edge of the frame."

So they put the pictures on, and finally gummed a very narrow gilt border around each one of them, and then the boxes appeared to be done.

"Now are they all finished?" asked Luly.

"All except drying," said John. "They have got to dry."

"But they will dry of themselves, won't they?" asked Mary.

"They won't dry in the *right shape*, of themselves," said John. "We shall have to attend to that a little."

CHAPTER XIV.

ABOUT DRYING.

THERE is something curious about drying that it is important that all children should understand.

The drying of a thing is only the going away of the water from it, or out of it. The water goes away into the air. It turns first into vapor and then goes away. The reason why you cannot see it go away is, because it goes away as vapor, and vapor is generally invisible.

Sometimes you can see the water go away into the air, as, for example, when a tea-pot full of hot water is put upon the table in a cold winter morning, and the steam rises from it in a visible form.

When wood or paper is wet, the water soaks into it and swells it to a larger size, and makes it softer than it was when it was dry.

When the wet wood or paper is left a

long time in dry air, the water from it goes away, and then the wood or paper *shrinks*, so as to become smaller than it was when it was wet, and also becomes harder and stiffer.

You can prove this easily by experiment. Drop a drop of water upon a sheet of paper, and leave it so a few minutes, and it will produce a kind of blister on the paper. This is because it swells the paper and makes it bulge out on one side or the other. It makes it soft too, as you will see by pushing your finger against it, and observing how easily you can break through.

Wood too, as well as paper, swells when there is water soaked into the pores of it, and also becomes softer. When trees are growing they are full of sap, and then the wood is quite soft comparatively, — that is, the axe will go into it much more easily than it will when the wood is dry.

If you were to go into the woods in the winter, when the lumber-men are at work cutting down the immense pine-trees that grow there, you would be surprised to see how easily they do it. You would think it strange to see how far the axe goes in at

every stroke, and how fast the large chips come out. This is partly because the wood is full of sap, which is almost all water, and this water makes it comparatively very soft.

When the tree is cut down, and the wood has had time to become dry, it is much harder and stiffer than when it was green, that is, when the pores were full of sap.

They can, however, soften it again, if they wish to bend it for any purpose, by filling the pores with water again. This they often do by putting the piece of wood which they wish to bend, in hot water or hot steam. That is the method by which the workmen bend the wood round to make boy's hoops, or the runners of sleds.

When wood, or pasteboard, or any other such substance, has been thoroughly wet, so that the pores are filled with water, and is then dried, it shrinks in its size as well as hardens in its substance; and if it dries too fast, it is very apt to shrink unequally, and this does mischief in two ways. The two kinds of mischief thus produced are *cracking* and *warping*.

When the wood is very thick, and one part dries before the rest, it shrinks away from the rest, and this opens a crack. If you look at the ends of the sticks of wood in a wood-pile, or any stick brought to put upon a fire, you will almost always see cracks in the wood which were produced in this way. There will *always* be cracks, in fact, if the wood was cut for the fire when it was green, and so the ends left to dry afterward. If the wood was perfectly dry before it was cut, then it would not shrink afterward, and there would be no cracks.

If the wood, instead of being thick like a log, is thin like a board, and one part dries before the rest, it will shrink; but now instead of opening a crack it will pull the board out of shape, — which it can do, as the wood when in the shape of a board is comparatively thin, and can easily be bent. This is called warping, and it is quite a curious process.

The way to prevent wood from cracking is to make it dry very slowly; and to prevent it from warping, it must be put under pressure, and held perfectly flat until it is

dry. In this way the part that dries first cannot pull the other out of shape.

And as a general rule, if anything that is wet is held firmly in any position while it is drying, and is kept in that position until it is dry, it will remain permanently in that position after it is dry.

If you have a book with the leaves all curled up or doubled over at the corner, making what are called dog's ears, and you dampen the corners by holding them over the steam of a tea-kettle, or by putting damp pieces of newspaper between the leaves, and then put them under a weight, and leave them so until they are dry, they will retain the form that they were held in while they were drying, and so remain flat, as they ought to be.

Sometimes children try to smooth out the dog's ears from their books by putting them in press *without* damping them; but this does comparatively very little good. They must be made damp, and then held in the position you wish them to retain while they are drying, and that will *fix* them.

Pressing them without first making them

damp is like ironing clothes when they are dry, which never makes them smooth.

Now Mary did not understand all these things about the philosophy of drying things; and so when the boxes were finished, and John said there was nothing to be done but to dry them, she proposed that they should put them down before the fire, where they would dry quick.

"We don't want them to dry quick," said John: "we want them to dry slowly. If they dry quick they will be apt to warp all out of shape."

"I don't see why that should be," said Mary.

"Why, the philosophy of it is this," said John: "When wood or paper or pasteboard, that is wet through, dries, it shrinks. Now if we put our boxes down before the fire, the corners and sides that come nearest the fire will shrink faster than the other parts do, and so pull the whole box out of shape."

"Is that the philosophy of it?" asked Luly.

"Yes," said John, "that is the philosophy of it."

Luly had not understood John's explanation at all. She asked the question only for the sake of the pleasure of repeating such a hard word as philosophy.

"Children," said Sophronia, "have n't you almost finished your work? I want the ironing-board pretty soon. I have got a little ironing to do."

"Yes," said John, "we will clear our things away at once."

So they began to put the things together. They laid what was left of the fancy paper in a pile, and Mary brought a portfolio to put it in, so as to keep it smooth for another time. According to directions which John gave her, she washed the cork of the gum-bottle, and also the mouth of the bottle, clean, and then wiped them both dry. She next rubbed a little tallow around the cork to prevent its sticking to the glass, and then put the cork in. She also washed and wiped all the brushes.

"If it is worth while to have a gum-bottle and brushes," said John, "it is worth while to keep them in order."

"As for the glue," said Mary, "I mean

to go in and ask mother if she will not let us keep the cup and mug for our glue-pot, and then we can let the glue that is left remain in the cup, all ready for the next time."

So she went into the parlor to make this request, which was at once granted. On her return she poured out the water from the mug, and then put the cup back into the top of it, leaving the glue in it, to be ready there for the next time.

"It will all dry up, of course," said John; "but then when we wish to use it again, we can put some water in and dissolve it anew. The water that is there now will all go off into the air, but the glue will remain."

"Why does not the glue go off into the air too?" asked Mary.

"I do not know," said John. "Particles of some things will go off into the air in this way, and some things will not. I don't know why."

"What things will, and what things won't?" asked Mary.

"Why, water will, and glue won't," said John, "for two things; and particles of

sugar will not. The sap which they get from the maple-trees in the spring is almost all water, but there is some sugary substance dissolved in it, and when they boil the sap the water all goes off into the air, and the sugary substance stays behind in the kettle."

"Let us make some sugar, some day, in our sugar-house," said Mary.

"We can't get any sap at this time of the year," said John, "but we might make some candy, if there was only any way to set a kettle. We can't make a fireplace there, because the opening in the chimney does not come down to the ground. But we could set a stove there if we only had one."

"I know where there is a stove," said Mary. "Only it is cracked."

"Where is it?" asked John.

"Out in the back room," said Mary.

"Let's go and see it," said John. "Though first we must shape our boxes a little, and put them away to dry."

John then explained to Mary, that the best way to keep their boxes in a good shape while they were drying, would be

for him to make some blocks of wood just large enough to fill them, and then to shut the covers down, and put them under something heavy to press them.

"But I have not time to do that," said he; "and besides, my shop is not here, to make the blocks. But we can do very well by bending the boxes into a good shape, and watching them from time to time as they dry."

So John took his box, and after examining it attentively as he turned it over in his hands, while yet he took pains to handle it very carefully, he began gently to press the sides and corners in different places, until he had made it square and straight in every part except the top, which last he pressed upward so as to make it bulge *up* a little. The pasting of the picture upon the top of the cover had swelled the pasteboard somewhat, so as to occasion a strong tendency in it to bulge, one way or the other. It was naturally inclined to bulge downward, thus making the top of the box concave. John said it would be much better to have the bulge up, so as to make the cover convex at the top.

“ A box looks much better,” said he, “ to have the top rounding upwards, rather than to have it sink down, so as to make a hollow.

“ If I had a block,” said he, “ that would exactly fill the inside of the box, then I could put the block in, and put the cover on the top, and set the whole under some pressure, and then the top would dry perfectly flat. But I don’t think that that would be any better. A box looks quite as well to have the top a little rounding. People often make them so on purpose.”

So saying, John put his hand on the underside of his cover, and pushed the pasteboard up, so as to make it convex on the upper side. He also took care to press out the corners and the sides wherever they needed it, so as to give both the box and the cover the true form in every part.

Mary and Luly did the same with their boxes.

“ Now,” said John, “ we will put them away in some safe and cool place, where they will dry slowly, and to-night before you go to bed you may look at them

again, and see if they are still in good shape."

So all the three children went with the boxes into the back hall, and there put them into a closet, where they would be safe. The closet was cool, but not cold enough to freeze, for there was a stove in the hall which kept all that part of the house moderately warm.

"And now," said John, "let us go and see the stove."

So Mary led the way out into the back room, and there showed John a pretty large stove, of the kind called a Franklin stove. It was of the shape of a fireplace, being open in front. One of the jambs had become cracked, and this disfigured the stove so much that it had been condemned and set away, and another one had been provided to put in its place in the house.

John said that he thought they could put up that stove very nicely in the old sugar-house, if they could have it. There was a short piece of pipe belonging to it, which John said could go back into the opening in the chimney, and he could

mend up around it with bricks,—provided he could only get some mortar.

But it was too cold for them to stand out there talking about it at that time, and so they went back into the kitchen again. There they found that while they had been gone, Sophronia had taken the ironing-board and put it upon a table near the window, and was now beginning her ironing. They all went and stood by her a little while, watching the process. It furnished a striking illustration of the principle which John had been explaining to them, namely, that damp substances, like the fibres of cloth, when dried remained in the form which they were made to assume while drying; for the flat-iron dried the fibres of the cloth by its heat, and while it was drying them held them flat and smooth by its smoothness.

While the children were standing at the table watching Sophronia's operations, a gleam of sunshine suddenly came in through the window upon the table.

“Look!” exclaimed John. “There is the sun. It is clearing away! It is clearing away!”

On looking out the window they all saw, true enough, that the snowing had ceased and the sun was breaking through the clouds.

"Let us go out," said John, "and break the paths."

Mary and Luly eagerly accepted this proposal, and rushed into the other room to procure what they called their snow-rig, which consisted of warm clothing for their necks and shoulders, and thick warm stockings that came up over their pantalets above their knees. With these means of protection they could safely wallow about in the deepest snows, and nothing pleased them so much as to go out at the close of such snow-storms as this, and break out the paths.

By the time that they were ready, John was ready too, and they all went out. First they broke out the paths from all the doors, through the yards, out into the street, wading through the snow back and forth, and filling the air with calls to each other and shouts of laughter. When Mary or Luly found the snow so deep that they could not make their way through it, they

would sit down, as if giving up in despair, but yet shouting with laughter. They would sometimes sink so deep as almost to be buried up; while the deeper they went the more they seemed to be filled with joy and pleasure.

John would then soon come to the place and trample the snow down before them and around them, so that they could go on again.

After a time the children made their way through the snow round toward the barn, and there they found Jotham bringing out the oxen.

"There's Jotham," said John. "He is going to break out the road, and we will go and help him."

Jotham was in the act of attaching the oxen to the sled, and when the team was ready, John put the board on, between the two end-bars, and then the children took their stations upon the board, holding on by the stakes at each side. Mary took one stake and John and Luly the other. John took care that Luly did not fall, though he knew that it would have done little harm if she were to fall, as the ground

was covered everywhere so deep with soft snow.

When the oxen were ready, Jotham drove them out by the great gate into the road, and then went along the road, first one way and then the other, breaking through all the big drifts and trampling down the snow, so that horses and sleighs could pass along. At length, when this work was thoroughly done, Jotham came back again with the sled, bringing Mary and Luly to the house, and John went home.

CHAPTER XV.

A JANUARY THAW.

SOMETIMES young farmers who are making new farms in the woods, and there comes some difficult work to do which one cannot do alone, and there is nobody near them that they can hire, — or if they have not any money to spare to pay a hired man, — get over the difficulty by helping each other, on the plan of what they call "*changing works.*"

For example, once there were two young farmers who had new farms in the woods, not very far from each other. Their names were Thomas and John. Thomas had been upon his farm the longest time, and he had a house built, but there was no cellar under it. John's farm was entirely new, and he had no house.

John had chosen a young woman to be his wife, and he was in haste to be married, and so he concluded to build a log house

first, and live in that a few years until he could build a better one of timbers and boards. He accordingly felled a good many straight trees, and cut the trunks of the proper length to form logs for his house, and hauled them by means of his oxen to the place where his house was to be. But he could not possibly build his house alone, for alone he could not lift such large and heavy logs up into their places.

In the same manner Thomas, in preparing to make his cellar, had no difficulty in digging out the ground under his house, — first, however, propping up the house at the four corners to prevent its sinking into the opening, — nor in digging around a large number of big stones in one of his fields, and then putting a chain around them and making the oxen pull them out and then haul them on a drag to the house, ready to be built into a wall. But he could not actually build them into a wall alone, for he could not by himself pry such large and heavy stones into their places.

So Thomas and John agreed to exchange works. John said to Thomas, "If you will

come and work with me two days, and help me build up these great logs into a house, I will then come and work with you two days, and help you build your big stones into a wall."

So they did, and by exchanging works in this way, in due time the house and cellar were both completed.

Now John's and Mary's mothers adopted a plan somewhat similar to this, though what they exchanged was not work, but children — or perhaps I might say the care of children. John's mother was saying one day that she sometimes found it difficult to know what to do with Benny on stormy days, when he could not go out to play, and John was gone away to school.

"He gets tired of playing alone," said she, "and comes continually to know what he shall do next."

"Yes," said Mary's mother. "It is just so with Luly when Mary is gone to school."

At last the idea occurred to them of making an exchange. The plan which they devised was to have Benny sent over one stormy day to play with Luly, and the

next stormy day to let Luly be sent to play with Benny.

This plan was found on trial to work admirably well. The mothers both liked it very much indeed, and the children liked it even better than the mothers.

One day toward the end of February there came a thaw. It began to rain about the middle of the afternoon; and the next morning the yards and all the grounds around the house were filled with pools of water and melting snow, and in the road all the sleigh-tracks were filled with little rivulets, trying to find their way down into some brook or river. Of course there was no such thing as going out to play at such a time as this.

When Benny came down in the morning, just before breakfast, he went to the window and looked out. Nothing was to be seen but a deluge of melting snow and water, and of rain pouring down from the skies faster than the little brooks and rivers could carry the water away.

"John," said Benny, "this is a good day for me to go to Auntie's; and it is my turn. Luly came here the last time."

“ Yes,” said John. “ And I will go and take you over there in the sleigh, as soon as we have done breakfast.”

Mrs. Gay, Benny’s mother, acceded to this proposal, and it was carried into effect. Benny enjoyed the ride very much, the melting snow and water in the road being sometimes so deep that some of it almost came into the sleigh, and it rained so hard that he had to hold a large umbrella over his head all the way.

He had a little package under his arm, which he was very careful not to let get wet. This package contained two small scrap-books, one for himself and one for Luly, which John had made for them.

These scrap-books were of about the size of a piece of note-paper in length and breadth, and in respect to thickness they contained sixteen true leaves and about as many false leaves.

This is a curious thing in respect to a scrap-book, namely, that it must have false leaves as well as true leaves, and about as many of one kind as of the other.

Benny’s attention was first called to this peculiarity in the construction of a scrap-

book by looking at one which John had bought at a book-store, in order to put some pictures in, which he had saved for the purpose. Whenever he saw a picture upon any waste piece of a pictorial paper, or on any loose sheet, he would cut it out; and when he had nothing else to do he would color it by means of the paints in his paint-box. At last, when he had accumulated a considerable number of these pictures, he bought a scrap-book to put them into. It was this scrap-book which Benny saw when he brought it home.

He laid it down upon his desk, and went to the fire to warm his hands. The scrap-book was wrapped up in a paper, and tied with a string.

"What have you got in this paper?" asked Benny.

"A scrap-book," said John.

"May I open it?" asked Benny.

"You may take off the string," said John, "if you can untie the knot, and then make it into a snug coil by winding it round your fingers."

This Benny did. John had taught him how to coil up strings neatly in this way before.

"Now may I take off the paper?" asked Benny.

"Yes," said John, "take off the paper carefully, and fold it up."

Benny did this also.

"Now may I open the book?" asked Benny.

"Yes," said John.

So Benny opened the book.

"What a thin book it is," said Benny.
"Only the back is pretty thick."

"Oh, Johnny," he said, after opening the book and looking between the leaves, "this is not a good book. A great many of the leaves have been cut out."

So saying, Benny showed John the edges of the false leaves where they came into view, among the true ones.

"That's all right," said John. "They make scrap-books so on purpose."

The truth is, that if scrap-books were made in the usual way, with all the leaves full, it would be bulged all out of shape when the pictures were pasted in. For when you come to paste pictures on each side of each leaf, you make each leaf three times as thick as it was before, and that

would make the whole body of the book three times as thick as the back, and it would not shut well at all. In order to make allowance for this increased thickness of the body of the book when the pictures are placed in, the back of the book is made of double or triple thickness at the beginning, by putting in *false leaves* as they are called,—that is, leaves that come out only a little way, not so far as to the inner edges of the pictures. This makes the back of the book look thick and the body of it thin, when it is first bought, but afterward, when the pictures come to be pasted in, it all comes right. The body of the book now becomes as thick as the back.

John explained this to Benny, and Benny was much interested in the explanation. He began moreover to wish that he had a scrap-book.

“I wish you would make me a scrap-book, John,” said he,—“a small one,” he added. “You need not make it so large as this.”

“How could you get any pictures to put in it?” asked John.

"Mary will give me some," said Benny. "She saves all her pictures, and has got a good many. She would give some of them to Luly and me, if we only had a scrap-book to put them in. I wish that you would make *two* little scrap-books, — one for Luly and one for me."

"I think that would be a very good plan," said John.

"Will you do it?" asked Benny.

"I can't promise. I never like to make promises. All I can say is, I think it would be a very good plan."

So John sat down to his work of gumming his pictures into his book, — Benny looking on all the time and observing how he did it. He saw that he took pains to trim every picture square before he put it in, and then was very careful to put it square upon the page. He also gummed the pictures only at the four corners, and put on moreover only a *very little* gum at each corner. This little however was very thick, and it seemed to fasten the corner down immediately, and to make it quite strong.

A day or two after this, John made the

two scrap-books for Benny and Luly. He took one large sheet of smooth wrapping-paper for each book, and folded it up again and again until it formed pages of the proper size. Then he cut the paper apart at the foldings and inserted between each sheet of two leaves a strip of the same kind of paper, which he had previously cut out and folded lengthwise, so as to make of each strip two false leaves.

Having put all these leaves together properly, the true and the false ones in alternation, he sewed them together by long stitches of strong thread through the back.

He made two books in this way, and when they were both sewed he opened one of them, and spread it out upon the table, and cut out two pieces of marble paper just as large as the book was when spread open. He then diluted his gum by putting in more water, so as to make it pretty thin; for when you are going to gum over a large surface, the gum must be pretty thin.

He applied the gum with a brush to one of the marble-papers, and having spread

open one of the books, he laid it flat upon the sheet, — the part intended for the back *down*. He did the same with the other book, and then placed the books together, with one or two thicknesses of newspaper between and on each side of them, and put them between two small square boards, and screwed them up tight in his carpenter's vice, in his shop, in order that they might remain pressed perfectly flat and smooth while they were drying.

He left them there all that day and night. The next morning he took them out, changed the newspapers, and put them in again. By the second day he thought they were quite dry, so he took them out again, and trimmed the edge of them with a ruler and a sharp-pointed knife upon a cutting-board.

Thus he made two very pretty little scrap-books; and it was these two scrap-books that formed the little flat parcel under Benny's arm, as he was riding along with John on the way to his aunt's, through the rain and melting snow, at the time of the thaw.

CHAPTER XVI.

EQUAL PARTITION.

VERY soon after Benny arrived at his aunt's, he showed Mary and Luly the two scrap-books which John had made for him and Luly. They were both very much pleased with them.

"And I have got a great many little pictures to give you to put in them," said Mary. "By-and-by I will give them to you and give you some colors to paint them with, and then you can put them into your scrap-books."

Luly and Benny accordingly played with the junk-store for about an hour, and then Mary was ready to attend to the pictures. She set out a table for them, and placed them at it in high chairs, and gave each of them a tumbler half full of water, a paint-brush, a plate upon which she had rubbed a great deal of paint of four bright colors, namely, green, red, blue, and brown. She

also laid upon the table a number of little pictures, such as she had cut out from loose sheets, headings of bills, advertising circulars, and from other similar sources. She always saved in this way all the pictures that she saw, even if they were not very pretty ones. She knew that, whatever they were, Luly would like to paint them.

Luly immediately put out her hand and seized one of the pictures, saying, —

“I speak for this one. It is the prettiest one of all.”

“No, Luly,” said Mary, “put it back; you must divide them fairly.”

Benny took up his paint-brush and dipped it into the water in order at once to take up some paint upon it, but Mary directed him to put it down again.

“I am going to give you some directions,” said she, “and you must not begin your work until you get your directions.”

“In the first place,” said she, “you must divide the pictures fairly. There are eight of them in all, four for each, and you can draw lots for them, if you can’t agree in any other way.”

“Then when you have divided the pic-

tures," continued Mary, "you can each take one and begin to color it. I advise you to begin with one of the smallest ones.

"I have given each of you a plate with colors upon it,—green, red, blue, and brown. The green is for the grass and the leaves of the trees. The brown is for the trunks of the trees and the roofs of the houses. The red is for the chimneys, and for the whole house if you wish to make believe that it is built of brick. The dresses of the girls and boys, and also of men and women, if there are any in the picture, you can paint in green, red, blue, or brown, according to your fancy.

"When any one of your colors is out," said Mary, "you can come to me, and I will rub you some more. That is the only thing you will have to come to me for. I am going to be at work in the other room, doing my sums, and you must not interrupt me if you can possibly help it."

So saying, Mary left the children at their work and went away.

They, however, very soon got into difficulty. The difficulty was about dividing

the pictures. They both wanted the same ones.

The reason why they both preferred the same ones was not exactly because their independent opinions and tastes were the same, but because Luly followed Benny's opinion and taste. Every picture that Benny showed any disposition to prefer, Luly thought at once must be the best. In consequence of this interference they soon became involved in quite serious disputes, and in the end they both went to Mary, complaining each of them that the other *would* have all the prettiest pictures.

"You must divide them fairly," said Mary.

"But I want the picture of the wind-mill," said Benny, "because I want to paint the sails red."

"And I want the picture of the wind-mill too," said Luly. "*I* am going to paint the sails red."

"You must divide them fairly," said Mary. "There are several ways to do it. I will go and show you how."

So Mary laid down her slate and pencil, and went into the room where the children

had been, in order to show them how to divide the pictures fairly.

She began by saying that there were four or five ways of dividing such things fairly, so as to give to each one an equal advantage, and added that she would show them all the ways, and that then they could take their choice.

"The first way," said she, "is to take turns in choosing, and let the youngest begin. I will show you how. We will divide them in this way once,—only the division is not to go for anything, but only to let you see the way. Put all the pictures in a row on the table."

So the children put them all in a row.

"Now we will suppose that Benny is willing to let Luly have her first choice."

"But then she will choose the windmill," said Benny, with a complaining tone of voice.

"No, I should not choose the windmill either," said Luly.

"She *might*, at any rate," said Mary. "She would have a right to do it. And you have a right to object to giving her the first choice on that account, if you choose.

You can do as you please about it. It is generous in such cases for the oldest to give the youngest the first choice; but if they are not willing to do so, nobody has any right to complain."

"Well," said Benny, "she may have her first choice."

"It is not to go for anything," said Mary, "but only to show how this plan works."

So Luly chose a picture, — not the windmill.

"Now, Benny, it is your turn."

"And can I take the windmill?"

"You can take anything you please," said Mary. "Luly has had her choice, and now it is your turn, and you can take anything you please."

Benny decided to take the windmill.

Luly now took her turn again, and then Benny his, and so on in rotation until all the pictures had been taken, four for each.

"There!" said Mary, "that is one way to divide them, and it is a very good way when the oldest is generous enough to be willing to give the youngest the first choice. If the oldest is not willing to do that, then

you must draw lots to see who shall have the first choice, and then go on choosing in turn until all are taken. That is one way."

"Now tell us another way," asked Benny.

"The second way," said Mary, "is for you both to join together in dividing the pictures into two parcels, as nearly equal as you can, putting just as many of the prettiest ones into one parcel as you do in the other, so as to make one set, on the whole, as nearly as possible as valuable as the other. Then, when you have made this division, you draw lots to see which parcel each one shall have."

"That's a good way," said Benny.

"Yes," said Mary, "it is a good way, provided you can agree together in dividing the pictures so as to make two equal parcels. But sometimes children have so little sense that they quarrel in trying to do that. But you can try and see if you can do it without quarrelling."

So the children began to divide the pictures with a view of making two parcels of equal value. At length, after making

several changes, they succeeded in effecting the division, and then Mary said that the next thing was to draw lots to see which should have the choice of them.

"The easiest way to draw lots," said Mary, "is for each one to open a book and take the last letter on the right-hand page. Then the one who gets the highest letter of the alphabet has the choice.

"Sometimes one person opens the book for all the persons," said Mary; "only in that case you must always say who you are opening for, before you open. But it is generally better to let each one open for himself."

"Yes," said Luly, "let me open for myself."

So Mary gave Luly a book, and she opened it at random, and then Mary pointed to the last letter on the right-hand page. It was the letter *t*.

"Now, Benny," said Mary, "it is your turn."

So Benny took the book and opened it. His letter was *l*. Luly thus got the highest letter, and had her choice of the two sets into which the pictures had been divided, and Benny had the other.

"That is the second way," said Mary. "You make two equal parcels and draw lots for the choice. But this division is not to go for anything. It was only to show you how to do it that way. Now there is another way. First mix the pictures all up together again."

So the children put the pictures together again, and then Mary said that the next way was for one to divide the pictures into two sets and the other to take his choice. Benny might divide them, she said, and then let Luly take her choice, or Luly divide them and let Benny take his choice. It makes very little difference which.

Luly wished to divide them. Her only reason however for this seemed to be, that the dividing was the first thing to be done. So she divided the pictures into two equal parts, as nearly as possible, and let Benny take his choice. After that, Benny divided them and let Luly have the choice.

"So you see," said Mary, "how foolish it is for children to quarrel about any things they have in common when there are so many ways of dividing them fairly. Now I am going back to my work, and you

must divide the pictures yourselves in some one of the ways that I have shown. You may take any one of them you like."

So Mary went away, leaving the children to themselves. She expected that they would now immediately divide the pictures and at once begin to paint them, and that they would come to her before long for a fresh supply of color, as she supposed that they would soon expend what she had given them, especially the green, as it takes so much green for the grass and trees.

But they did not come for a long time. The truth was, that, when Mary was gone, they began to try again the various modes of dividing the pictures which Mary had explained to them. They concluded not to divide them in earnest at first, but only for play, in order to see how it would come out, and they became so much interested in this that they went on dividing the pictures over and over again, with a great deal of talk and merry laughter, almost all the forenoon.

CHAPTER XVII.

MAKING PICTURE-BOOKS.

At length, however, they concluded that it was time for them to begin to paint their pictures, and so they divided them in earnest, and each one took their respective shares. Then they commenced seriously the work of coloring them. The green, as Mary had expected, was soon exhausted, and they both were obliged to go to her for a fresh supply. They afterward had to go for more of the red and of the other colors, and Mary very readily gave them what they required.

When they had finished coloring their pictures they wished to begin at once to gum them in the scrap-books; but Mary told them that they had been sitting still long enough, and they had better run about and play until dinner-time, and so wait till after dinner, before beginning the work of gumming the pictures in.

When the time arrived, Mary gave them all the necessary directions for the work. These directions are very simple, but they are very important. By carefully observing them you can make very pretty picture-books, if you will first only make the book itself, by folding a sheet or half a sheet of plain wrapping-paper properly, and then sewing it and trimming the edges. It is better to put in some false leaves, as John did, but this is not at all *necessary* if the book is thin.

To make the cover, it is a very good way to proceed as John did, if you have the conveniences for gumming or pasting so large a surface, and for afterward pressing it while it is drying, to make it dry smooth. But if you have not these conveniences, any kind of stiff paper will do for a cover. It will be better, however, to have it of a different color from the sheets inside.

The first direction which Mary gave the children was, that they must arrange the pictures on the several pages before they began to fasten any of them in.

"Because, you see," said she, "some of the pictures will go together better than

others, and when you have decided what are to go upon any one page, you will find that there are different ways of arranging them, and some of these ways are much better than some others. For instance, if you have four small pictures and one large one to go upon a page, it is better to put the large one in the middle, and two of the smaller ones above and two others below, rather than to put the large one at the top or bottom and all four of the small ones above or below it.

“So you must determine how you are going to place all the pictures upon one page before you fasten any one of them in.”

Another direction which Mary gave was, that they must not put any of the pictures too near the edge of the page, but must leave a margin all around. She told them that this was always so in books. The printing was never allowed to come quite to the edge of the leaf, neither at the sides nor at the top and bottom. She opened two or three books and showed them that this was so.

“There is a good reason for it, too,” said

Mary. "Uncle Edward told me the reason. He said that sometimes they had to trim off the edges of a book after it was all put together, and then, if the printing or the pictures came out to the edge of the paper, some portion would be cut off."

"But our books are trimmed already," said Benny.

"Yes," said Mary, "but by-and-by, after you have used them a long while, perhaps they will come unsewed, and then, when they are sewed again, the sheets will not come together exactly as they did before, and to make the books look nice the edges must be trimmed again."

There is another reason, besides the one mentioned by Mary, why the pictures in such a book should not come out quite to the margin, and that is, that in turning over the leaves of a book a great many times the edges are rubbed more or less by the fingers, and so get worn and perhaps soiled; and thus, if the pictures are brought out quite to the edge, the margins of them will become injured.

Remember therefore always, when you make books of any kind, to leave a margin

all around every page wide enough to prevent the pictures or the reading from being injured by the wearing of the edges, or by the cutting away of the paper in case of any new trimming of the book.

Another thing that Mary told the children was, that the gum which they used to gum their pictures in must be very thick, and only a very little of it be used near each corner of the picture. She gave them each a brush to put the gum on with, and showed them how *very little* they must take.

Sometimes when people paste pictures, or articles cut from a newspaper, into a book, they paste the whole back side of the picture, and of course, in order that the gum or the paste may be easily spread over so large a surface, it must be tolerably thin. This wets the paper and swells it. Then when the paper thus wet is laid down upon the page where it is to go, the part of the page which it covers is wet too, and that swells. This produces a great bulge in the paper, and when it dries it never comes back exactly into its original condition, but leaves the paper warped and drawn out of

shape, and it can never be made to look smooth.

If, when pictures are put in in this manner, the whole book could be wet, and the pictures put in upon all the pages at the same time, and then the whole put under very heavy pressure until it was all dry, — then it would look very nice and smooth. But this it is very inconvenient to do. The best way is, therefore, in most cases, to wet the pictures and the pages that they are to be pasted upon, *as little as possible*, so as not to swell them. This can be done by using the gum very thick and then putting on very little at the corners, and, if the picture is large, a slight touch here and there in the middle.

After giving the children all these instructions, Mary asked them if they wished to have any reading in their books, as well as pictures. They said they would like to have some reading in them very much.

So Mary went away, but soon she returned, bringing with her a small basket which contained a great number of scraps cut from newspapers, consisting of short stories, funny anecdotes, conundrums, and

other such things. She had long been in the habit, when she saw such things in waste newspapers, of cutting them out and putting them away, with a view of using them in scrap-books; and now she looked over her collection and selected from it such as were most suitable to be put into Benny's and Luly's books. She read them to the children as she laid them out, and gave half to Benny and half to Luly. She also gave them directions about putting them in between and among the pictures, wherever there were vacant spaces convenient to receive them, so as to make an agreeable variety upon every page.

"You see," said she, "when you grow a little older and can read well, it will be all the more amusing to you, when you sit down to look over your books, to have stories in them to read, and some riddles to guess, as well as pictures to see."

So saying, Mary went away and left Benny and Luly to go on with their work after their own fashion. This was better on some accounts than to have remained for the purpose of watching them at the work, to see that they did it right, and pre-

vent their making mistakes. It is true, if she had remained and directed them in every step, the work would of course have been much better done, and the books would have looked better; but the children would not have enjoyed themselves so well, nor would they have improved so much. And moreover, when the work was done, the children would not have felt that they made the books themselves, which would have greatly diminished their satisfaction in the result.

It is much better in such cases, after providing children with all the required facilities, and giving them the necessary instruction, to leave them to exercise their own judgment and skill in doing the work. They learn thus to act independently and with self-reliance. They make mistakes, and the work when done shows many imperfections; but these must be expected in all first attempts. It is better to let the children commit these faults and see them for themselves, so as to do better next time, than to be always helping them and leading them.

After a while, Benny and Luly had

gummed all their pictures in, and also put in quite a number of the "reading things," as they called them, and then they brought the books to show them to Mary.

When Mary saw them coming, she determined not to find any fault with the work, unless she should observe some evidence of gross carelessness or wilful wrong, but only to notice and remark upon what was right.

"If they have made any mistakes," she said to herself, "or done anything wrong, as no doubt they have, now is not the time to tell them of it. The time for that will be when they are going to work to make picture-books again."

This was very correct reasoning. The time for giving learners instruction how to do work right is when they are going to *begin* work, not when they are at the end of it.

So Mary took the books in her hand, as the children gave them to her. She opened Benny's first.

"Look at mine first," said Luly.

"No," replied Mary. "We will look at Benny's first, because he is the company."

So Mary opened Benny's book and began to talk about the pictures and the reading, and to look at them with great apparent interest and pleasure. "These are pretty pictures," said she,—"all of them. That boy's jacket is colored very well. You have got all the trunks of the trees brown, and that is just right. Here is a riddle ; let me read it."

Then she read the riddle.

So she went on, turning over one leaf after another, until she had looked at all the pages which had been filled. She then took Luly's book and examined it in the same way, calling attention to everything curious in the pictures, and stopping now and then to read some anecdote, or conundrum, or little piece of poetry. Thus, although she said nothing directly in commendation of the books, she let the children see that they were really pretty and entertaining, by showing that she was herself pleased and entertained in looking them over.

After she had finished this examination she gave the books back into the children's hands.

"Put yours away carefully, Luly," said she, "and some other rainy day I will give you some more pictures to put in it, and by-and-by you will get it full.

"And, Benny, I advise you to take yours home, and show it to your mother."

"Yes," said Benny, "that is just what I am going to do."

Toward evening, John came in the sleigh to take Benny home. He looked at the two picture-books as Mary had done, and seemed much interested and quite pleased in examining the contents of them. He perceived that several of the pictures were not placed perfectly square upon the page, and he also noticed other defects and imperfections always incident to first attempts of this kind by young children. He however had the good sense not to say anything about these things, and only looked at the pictures and read some of the riddles and conundrums.

One of those that he read was this:

You always see me in the dark,
And hear me just by saying hark.

"Is not that a pretty riddle?" said Luly.

"Yes," said John. "And here is the answer under it: the letter R."

"Yes," said Luly. "Only I can't see anything in the dark at all."

The truth was that Luly had no idea of the meaning of the riddle, for as she had not yet learned to read, she did not know about the letter *r* being in the word dark. What she meant by its being a pretty riddle was, that it sounded pretty when it was read to her, or when she repeated it,—with its spirited rhyme of dark and hark.

John took Benny home pretty soon, in the sleigh, with his new picture-book safe under his arm. He did not have to hold the umbrella up, however, for the storm was over, the sky was clearing up, and it was growing cold.

CHAPTER XVIII.

CONCLUDING ADVICE.

SHOULD any of the children who may read this book feel a desire to attempt for themselves some of the operations which Mary Gay and Luly performed, I have some advice to give them, which, if they follow it, will make it much more probable that they will succeed.

When you conclude to undertake anything of this kind, you must plan your work carefully, and make all the necessary arrangements for it, before you begin. Choose a good and convenient place for the work, consider carefully all that you are going to do from the beginning to the end of the operation, and think of everything that you will require, and see that all that is necessary is provided, and arranged in proper order upon the table beforehand; so that when you once begin, you can

proceed regularly and systematically, and without hindrance or interruption, to the end.

While you are at work, proceed slowly and cautiously with every operation, not trying to see how quick you can do the work, or how much you get done, but how *well* you can do it.

Do not be in a hurry to have your work finished. Perhaps the greatest cause of the failures of children in their mechanical undertakings is their impatience to have what they are making finished. Do each day as much as you can do *well*, without paying regard to the time when the work will be done. When it is done you will like it all the better for having given plenty of time to it.

Do not begin with great undertakings, but try small ones first, and attempt greater ones as you find that you improve in skill and experience. All children, and boys especially, are very apt to plan their first work on too great a scale. It is much better to be modest in beginnings, and only attempt at the outset what you can accomplish easily and well. You can after-

wards enlarge the sphere of your operations as much as you please.

Finally, do not allow your works to be a source of inconvenience or trouble to your parents, or to any other persons in the family. Take great care not to soil or injure any books or furniture, or make disorder in a room, or leave scraps and litter for others to remove. Be specially particular, when you have done your work, to put everything back into its place, and to leave the table and the room in the same condition that you found it.

By following these rules, you will find not only that you will be much more likely to succeed in what you undertake, but you will work with a much greater degree of pleasure and satisfaction while you are employed in the operation, and you also will enjoy the result much more highly, when it is at last attained.

THE END.

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